書誌第228號

新天文航海表

NEW

ASTRONOMICAL NAVIGATION TABLES

水路部

HYDROGRAPHIC DEPARTMENT,

TÔKYÔ.

1933

水
69

第 1 表　時間弧度換算表

h	m	°	h	m	°	h	m	°	h	m	°	h	m	°	h	m	°
0	0	0	4	0	60	8	0	120	12	0	180	16	0	240	20	0	300
	4	1		4	61		4	121		4	181		4	241		4	301
	8	2		8	62		8	122		8	182		8	242		8	302
	12	3		12	63		12	123		12	183		12	243		12	303
	16	4		16	64		16	124		16	184		16	244		16	304
	20	5		20	65		20	125		20	185		20	245		20	305
	24	6		24	66		24	126		24	186		24	246		24	306
	28	7		28	67		28	127		28	187		28	247		28	307
	32	8		32	68		32	128		32	188		32	248		32	308
	36	9		36	69		36	129		36	189		36	249		36	309
	40	10		40	70		40	130		40	190		40	250		40	310
	44	11		44	71		44	131		44	191		44	251		44	311
	48	12		48	72		48	132		48	192		48	252		48	312
	52	13		52	73		52	133		52	193		52	253		52	313
	56	14		56	74		56	134		56	194		56	254		56	314
1	0	15	5	0	75	9	0	135	13	0	195	17	0	255	21	0	315
	4	16		4	76		4	136		4	196		4	256		4	316
	8	17		8	77		8	137		8	197		8	257		8	317
	12	18		12	78		12	138		12	198		12	258		12	318
	16	19		16	79		16	139		16	199		16	259		16	319
	20	20		20	80		20	140		20	200		20	260		20	320
	24	21		24	81		24	141		24	201		24	261		24	321
	28	22		28	82		28	142		28	202		28	262		28	322
	32	23		32	83		32	143		32	203		32	263		32	323
	36	24		36	84		36	144		36	204		36	264		36	324
	40	25		40	85		40	145		40	205		40	265		40	325
	44	26		44	86		44	146		44	206		44	266		44	326
	48	27		48	87		48	147		48	207		48	267		48	327
	52	28		52	88		52	148		52	208		52	268		52	328
	56	29		56	89		56	149		56	209		56	269		56	329
2	0	30	6	0	90	10	0	150	14	0	210	18	0	270	22	0	330
	4	31		4	91		4	151		4	211		4	271		4	331
	8	32		8	92		8	152		8	212		8	272		8	332
	12	33		12	93		12	153		12	213		12	273		12	333
	16	34		16	94		16	154		16	214		16	274		16	334
	20	35		20	95		20	155		20	215		20	275		20	335
	24	36		24	96		24	156		24	216		24	276		24	336
	28	37		28	97		28	157		28	217		28	277		28	337
	32	38		32	98		32	158		32	218		32	278		32	338
	36	39		36	99		36	159		36	219		36	279		36	339
	40	40		40	100		40	160		40	220		40	280		40	340
	44	41		44	101		44	161		44	221		44	281		44	341
	48	42		48	102		48	162		48	222		48	282		48	342
	52	43		52	103		52	163		52	223		52	283		52	343
	56	44		56	104		56	164		56	224		56	284		56	344
3	0	45	7	0	105	11	0	165	15	0	225	19	0	285	23	0	345
	4	46		4	106		4	166		4	226		4	286		4	346
	8	47		8	107		8	167		8	227		8	287		8	347
	12	48		12	108		12	168		12	228		12	288		12	348
	16	49		16	109		16	169		16	229		16	289		16	349
	20	50		20	110		20	170		20	230		20	290		20	350
	24	51		24	111		24	171		24	231		24	291		24	351
	28	52		28	112		28	172		28	232		28	292		28	352
	32	53		32	113		32	173		32	233		32	293		32	353
	36	54		36	114		36	174		36	234		36	294		36	354
	40	55		40	115		40	175		40	235		40	295		40	355
	44	56		44	116		44	176		44	236		44	296		44	356
	48	57		48	117		48	177		48	237		48	297		48	357
	52	58		52	118		52	178		52	238		52	298		52	358
	56	59		56	119		56	179		56	239		56	299		56	359

m	s	′	s	′
0	0	0	0.0	0.0
	4	1	0.1	0.0
	8	2	0.2	0.1
	12	3	0.3	0.1
	16	4	0.4	0.1
	20	5	0.5	0.1
	24	6	0.6	0.2
	28	7	0.7	0.2
	32	8	0.8	0.2
	36	9	0.9	0.2
	40	10		
	44	11	1.0	0.3
	48	12	1.1	0.3
	52	13	1.2	0.3
	56	14	1.3	0.3
			1.4	0.4
1	0	15	1.5	0.4
	4	16	1.6	0.4
	8	17	1.7	0.4
	12	18	1.8	0.5
	16	19	1.9	0.5
	20	20		
	24	21		
	28	22	2.0	0.5
	32	23	2.1	0.5
	36	24	2.2	0.6
	40	25	2.3	0.6
	44	26	2.4	0.6
	48	27	2.5	0.6
	52	28	2.6	0.7
	56	29	2.7	0.7
			2.8	0.7
			2.9	0.7
2	0	30		
	4	31		
	8	32	3.0	0.8
	12	33	3.1	0.8
	16	34	3.2	0.8
	20	35	3.3	0.8
	24	36	3.4	0.9
	28	37	3.5	0.9
	32	38	3.6	0.9
	36	39	3.7	0.9
	40	40	3.8	1.0
	44	41	3.9	1.0
	48	42		
	52	43		
	56	44		
3	0	45		
	4	46		
	8	47		
	12	48		
	16	49		
	20	50		
	24	51		
	28	52		
	32	53		
	36	54		
	40	55		
	44	56		
	48	57		
	52	58		
	56	59		

新天文航海表

NEW ASTRONOMICAL NAVIGATION TABLES

緒　言

近時位置ノ線ヲ求ムル爲ニ簡便ナル諸種ノ表相踵イデ考案出版セラルルアリト雖モ、是等ハ概ネ假定位置用ニ偏シ、推定位置用トシテ新規ノ表ノ出現セシモノ殆ド稀ナリ。會、昭和5年當部職員海軍少佐秋吉利雄ハ推定位置用トシテ一表ヲ考案編纂セシガ、其ノ要旨ハ高度及方位角ヲ同時ニ算出スル方式ニ基キ、對數ヲ使用スル古典的方法ニ新味ヲ加ヘタルモノニシテ、在來同種ノ表ニ比シ許多ノ點ニ於テ特色ヲ有ス。仍リテ玆ニ同表ヲ基幹トシ、之ニ測高度改正表、トラバース表等ノ一般補助表ヲ合輯編纂シ、以テ天文航法ニ使用スル航海表トシテ本書ヲ刊行スルコトトセリ。航海者用トシテハ勿論、特種ノ計算表トシテ亦實用上便益ヲ與フルコト多カルベキヲ信ズ。

昭和7年11月　　水路部長　植村茂夫

水　路　部

昭和8年

水-69

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第 2 表 I　⊙ 太陽ノ測高度改正表　0°—6°

第 1 改正　（平均改正）　氣溫：10°C（50°F）　氣壓：762mm（30吋）

測高度 Obs. Alt.	眼高 米（m）、呎（′）															測高度 Obs. Alt.
	0m 0′	3m 10′	4m 13′	5m 16′	6m 20′	7m 23′	8m 26′	9m 30′	10m 33′	11m 36′	12m 39′	13m 43′	14m 46′	15m 49′	16m 52′	17m 56′	
	測高度ニ加減																
° ′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	° ′
0 0	-18.6	-22.3	-22.9	-23.4	-23.9	-24.3	-24.7	-25.1	-25.5	-25.8	-26.1	-26.4	-26.7	-27.0	-27.3	-27.6	0 0
10	-16.5	-20.2	-20.8	-21.3	-21.7	-22.1	-22.5	-22.9	-23.3	-23.6	-23.9	-24.2	-24.5	-24.8	-25.0	-25.3	10
20	-14.6	-18.2	-18.8	-19.3	-19.7	-20.1	-20.5	-20.9	-21.2	-21.6	-21.9	-22.2	-22.5	-22.7	-23.0	-23.3	20
30	-12.8	-16.4	-17.0	-17.5	-17.9	-18.3	-18.7	-19.1	-19.4	-19.7	-20.0	-20.3	-20.6	-20.9	-21.1	-21.4	30
40	-11.2	-14.8	-15.3	-15.8	-16.3	-16.7	-17.0	-17.4	-17.7	-18.0	-18.3	-18.6	-18.9	-19.2	-19.5	-19.7	40
50	- 9.8	-13.3	-13.8	-14.3	-14.7	-15.1	-15.5	-15.9	-16.2	-16.5	-16.8	-17.1	-17.4	-17.6	-17.9	-18.2	50
1 0	- 8.4	-11.9	-12.4	-12.9	-13.4	-13.8	-14.1	-14.5	-14.8	-15.1	-15.4	-15.7	-16.0	-16.2	-16.5	-16.7	1 0
10	- 7.2	-10.7	-11.2	-11.7	-12.1	-12.5	-12.8	-13.2	-13.5	-13.8	-14.1	-14.4	-14.7	-14.9	-15.2	-15.4	10
20	- 6.1	- 9.5	-10.0	-10.5	-10.9	-11.3	-11.7	-12.0	-12.3	-12.6	-12.9	-13.2	-13.5	-13.7	-14.0	-14.2	20
30	- 5.0	- 8.4	- 8.9	- 9.4	- 9.8	-10.2	-10.6	-10.9	-11.2	-11.5	-11.8	-12.1	-12.4	-12.6	-12.9	-13.1	30
40	- 4.1	- 7.4	- 8.0	- 8.4	- 8.8	- 9.2	- 9.6	- 9.9	-10.2	-10.5	-10.8	-11.1	-11.4	-11.6	-11.9	-12.1	40
50	- 3.2	- 6.5	- 7.0	- 7.5	- 7.9	- 8.3	- 8.6	- 9.0	- 9.3	- 9.6	- 9.9	-10.2	-10.4	-10.7	-10.9	-11.2	50
2 0	- 2.4	- 5.7	- 6.2	- 6.7	- 7.1	- 7.4	- 7.8	- 8.1	- 8.4	- 8.7	- 9.0	- 9.3	- 9.6	- 9.8	-10.0	-10.3	2 0
10	- 1.6	- 4.9	- 5.4	- 5.9	- 6.3	- 6.6	- 7.0	- 7.3	- 7.6	- 7.9	- 8.2	- 8.5	- 8.7	- 9.0	- 9.2	- 9.5	10
20	- 0.9	- 4.2	- 4.7	- 5.1	- 5.5	- 5.9	- 6.2	- 6.6	- 6.9	- 7.2	- 7.5	- 7.7	- 8.0	- 8.2	- 8.5	- 8.7	20
30	- 0.2	- 3.5	- 4.0	- 4.4	- 4.8	- 5.2	- 5.6	- 5.9	- 6.2	- 6.5	- 6.8	- 7.0	- 7.3	- 7.5	- 7.8	- 8.0	30
40	+ 0.4	- 2.8	- 3.3	- 3.8	- 4.2	- 4.6	- 4.9	- 5.2	- 5.5	- 5.8	- 6.1	- 6.4	- 6.6	- 6.9	- 7.1	- 7.4	40
50	+ 1.0	- 2.3	- 2.8	- 3.2	- 3.6	- 4.0	- 4.3	- 4.6	- 4.9	- 5.2	- 5.5	- 5.8	- 6.0	- 6.3	- 6.5	- 6.7	50
3 0	+ 1.6	- 1.7	- 2.2	- 2.6	- 3.0	- 3.4	- 3.7	- 4.1	- 4.4	- 4.7	- 4.9	- 5.2	- 5.5	- 5.7	- 5.9	- 6.2	3 0
20	+ 2.5	- 0.7	- 1.2	- 1.6	- 2.0	- 2.4	- 2.7	- 3.0	- 3.3	- 3.6	- 3.9	- 4.2	- 4.4	- 4.7	- 4.9	- 5.1	20
40	+ 3.4	+ 0.2	- 0.3	- 0.7	- 1.1	- 1.5	- 1.8	- 2.1	- 2.4	- 2.7	- 3.0	- 3.3	- 3.5	- 3.8	- 4.0	- 4.2	40
4 0	+ 4.2	+ 1.0	+ 0.5	+ 0.1	- 0.3	- 0.7	- 1.0	- 1.3	- 1.6	- 1.9	- 2.2	- 2.5	- 2.7	- 3.0	- 3.2	- 3.4	4 0
20	+ 4.9	+ 1.7	+ 1.2	+ 0.8	+ 0.4	+ 0.0	- 0.3	- 0.6	- 0.9	- 1.2	- 1.5	- 1.7	- 2.0	- 2.2	- 2.5	- 2.7	20
40	+ 5.5	+ 2.3	+ 1.9	+ 1.4	+ 1.0	+ 0.7	+ 0.3	0.0	- 0.3	- 0.6	- 0.8	- 1.1	- 1.3	- 1.6	- 1.8	- 2.0	40
5 0	+ 6.1	+ 2.9	+ 2.4	+ 2.0	+ 1.6	+ 1.3	+ 0.9	+ 0.6	+ 0.3	0.0	- 0.2	- 0.5	- 0.8	- 1.0	- 1.2	- 1.5	5 0
20	+ 6.6	+ 3.4	+ 2.9	+ 2.5	+ 2.1	+ 1.8	+ 1.4	+ 1.1	+ 0.8	+ 0.5	+ 0.3	0.0	- 0.2	- 0.5	- 0.7	- 0.9	20
40	+ 7.0	+ 3.9	+ 3.4	+ 3.0	+ 2.6	+ 2.2	+ 1.9	+ 1.6	+ 1.3	+ 1.0	+ 0.8	+ 0.5	+ 0.3	0.0	- 0.2	- 0.4	40
6 0	+ 7.5	+ 4.3	+ 3.8	+ 3.4	+ 3.0	+ 2.7	+ 2.3	+ 2.0	+ 1.7	+ 1.4	+ 1.2	+ 0.9	+ 0.7	+ 0.4	+ 0.2	0.0	6 0

第 2 改正　（氣溫ニ對スル改正）

測高度 Obs. Alt.	氣溫												測高度 Obs. Alt.
	-20°C -4°F	-15°C 5°F	-10°C 14°F	-5°C 23°F	0°C 32°F	5°C 41°F	10°C 50°F	15°C 59°F	20°C 68°F	25°C 77°F	30°C 86°F	35°C 95°F	40°C 104°F	
	測高度ニ加減													
° ′	′	′	′	′	′	′	′	′	′	′	′	′	′	° ′
0 0	-8.1	-6.5	-5.1	-3.7	-2.4	-1.2	0.0	+1.1	+2.1	+3.1	+4.1	+5.0	+5.8	0 0
10	-7.3	-5.9	-4.6	-3.4	-2.2	-1.1	0.0	+1.0	+2.0	+2.9	+3.7	+4.6	+5.3	10
20	-6.7	-5.4	-4.2	-3.1	-2.0	-1.0	0.0	+0.9	+1.8	+2.6	+3.4	+4.2	+4.9	20
30	-6.1	-4.9	-3.8	-2.8	-1.8	-0.9	0.0	+0.8	+1.6	+2.4	+3.1	+3.8	+4.5	30
40	-5.6	-4.5	-3.5	-2.6	-1.7	-0.8	0.0	+0.8	+1.5	+2.2	+2.9	+3.6	+4.2	40
50	-5.1	-4.2	-3.3	-2.4	-1.5	-0.8	0.0	+0.7	+1.4	+2.1	+2.7	+3.3	+3.9	50
1 0	-4.8	-3.9	-3.0	-2.2	-1.4	-0.7	0.0	+0.7	+1.3	+1.9	+2.5	+3.1	+3.6	1 0
20	-4.1	-3.3	-2.6	-1.9	-1.2	-0.6	0.0	+0.6	+1.1	+1.7	+2.2	+2.7	+3.1	20
40	-3.6	-2.9	-2.3	-1.7	-1.1	-0.5	0.0	+0.5	+1.0	+1.5	+1.9	+2.3	+2.8	40
2 0	-3.1	-2.5	-2.0	-1.5	-1.0	-0.5	0.0	+0.4	+0.9	+1.3	+1.7	+2.1	+2.4	2 0
30	-2.6	-2.1	-1.7	-1.2	-0.8	-0.4	0.0	+0.4	+0.7	+1.1	+1.4	+1.8	+2.1	30
3 0	-2.3	-1.8	-1.4	-1.1	-0.7	-0.3	0.0	+0.3	+0.6	+0.9	+1.2	+1.5	+1.8	3 0
4 0	-1.7	-1.4	-1.1	-0.8	-0.5	-0.3	0.0	+0.3	+0.5	+0.7	+1.0	+1.2	+1.4	4 0
5 0	-1.4	-1.1	-0.9	-0.7	-0.4	-0.2	0.0	+0.2	+0.4	+0.6	+0.8	+1.0	+1.1	5 0
6 0	-1.2	-1.0	-0.7	-0.5	-0.4	-0.2	0.0	+0.2	+0.3	+0.5	+0.6	+0.8	+0.9	6 0

第 4 改正　（視半徑ニ對スル改正）　測高度ニ加減

	1 月	2 月	3 月	4 月	5 月	6 月	7 月	8 月	9 月	10月	11 月	12月
下邊⊙	+ 0′.5	+ 0′.5	+ 0′.4	+ 0′.2	+ 0′.1	0′.0	0′.0	+ 0′.1	+ 0′.2	+ 0′.3	+ 0′.5	+ 0′.5
上邊⊙	−32′.0	−32′.0	−31′.9	−31′.7	−31′.6	−31′.5	−31′.5	−31′.6	−31′.7	−31′.8	−32′.0	−32′.0

氣溫ト水溫トガ異ル場合ハ、本表ニ依リテ高度ヲ改正シタル後、第196頁下方ニ記セル眼高差ノ變化ニ對スル改正ヲ施スベシ。

第 2 表 I　⊙ 太陽ノ測高度改正表　0°—6°

第 1 改正　（平均改正）　氣溫：10°C（50°F）　氣壓：762mm（30吋）

測高度 Obs. Alt.	眼高 米（m）、呎（′）															測高度 Obs. Alt.
	18m 59′	19m 62′	20m 66′	21m 69′	22m 72′	23m 75′	24m 79′	25m 82′	26m 85′	27m 89′	28m 92′	29m 95′	30m 98′	32m 105′	34m 112′	36m 118′	
	測高度ニ加減																
° ′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	° ′
0 0	-27.8	-28.1	-28.3	-28.6	-28.8	-29.0	-29.3	-29.5	-29.7	-29.9	-30.1	-30.3	-30.5	-30.9	-31.3	-31.7	0 0
10	-25.6	-25.8	-26.1	-26.3	-26.5	-26.8	-27.0	-27.2	-27.4	-27.6	-27.8	-28.0	-28.2	-28.6	-29.0	-29.4	10
20	-23.5	-23.8	-24.0	-24.2	-24.5	-24.7	-24.9	-25.1	-25.3	-25.6	-25.8	-25.9	-26.2	-26.5	-26.9	-27.3	20
30	-21.7	-21.9	-22.1	-22.4	-22.6	-22.8	-23.0	-23.2	-23.5	-23.7	-23.9	-24.0	-24.2	-24.6	-25.0	-25.3	30
40	-19.9	-20.2	-20.4	-20.7	-20.9	-21.1	-21.3	-21.5	-21.7	-21.9	-22.1	-22.3	-22.5	-22.9	-23.2	-23.6	40
50	-18.4	-18.6	-18.9	-19.1	-19.3	-19.5	-19.7	-19.9	-20.2	-20.3	-20.5	-20.7	-20.9	-21.3	-21.6	-22.0	50
1 0	-17.0	-17.2	-17.4	-17.7	-17.9	-18.1	-18.3	-18.5	-18.7	-18.9	-19.1	-19.3	-19.5	-19.8	-20.2	-20.5	1 0
10	-15.7	-15.9	-16.1	-16.3	-16.6	-16.8	-17.0	-17.2	-17.4	-17.6	-17.8	-17.9	-18.1	-18.5	-18.8	-19.2	10
20	-14.4	-14.7	-14.9	-15.1	-15.3	-15.6	-15.8	-16.0	-16.2	-16.3	-16.5	-16.7	-16.9	-17.3	-17.6	-17.9	20
30	-13.3	-13.6	-13.8	-14.0	-14.2	-14.4	-14.6	-14.8	-15.0	-15.2	-15.4	-15.6	-15.8	-16.1	-16.5	-16.8	30
40	-12.3	-12.6	-12.8	-13.0	-13.2	-13.4	-13.6	-13.8	-14.0	-14.2	-14.4	-14.6	-14.7	-15.1	-15.4	-15.8	40
50	-11.4	-11.6	-11.8	-12.0	-12.3	-12.5	-12.7	-12.9	-13.1	-13.2	-13.4	-13.6	-13.8	-14.1	-14.5	-14.8	50
2 0	-10.5	-10.7	-11.0	-11.2	-11.4	-11.6	-11.8	-12.0	-12.2	-12.3	-12.5	-12.7	-12.9	-13.2	-13.6	-13.9	2 0
10	- 9.7	- 9.9	-10.1	-10.3	-10.6	-10.8	-11.0	-11.1	-11.3	-11.5	-11.7	-11.9	-12.1	-12.4	-12.7	-13.1	10
20	- 8.9	- 9.2	- 9.4	- 9.6	- 9.8	-10.0	-10.2	-10.4	-10.6	-10.8	-10.9	-11.1	-11.3	-11.6	-12.0	-12.3	20
30	- 8.2	- 8.5	- 8.7	- 8.9	- 9.1	- 9.3	- 9.5	- 9.7	- 9.9	-10.0	-10.2	-10.4	-10.6	-10.9	-11.3	-11.6	30
40	- 7.6	- 7.8	- 8.0	- 8.2	- 8.4	- 8.6	- 8.8	- 9.0	- 9.2	- 9.4	- 9.6	- 9.7	- 9.9	-10.3	-10.6	-10.9	40
50	- 7.0	- 7.2	- 7.4	- 7.6	- 7.8	- 8.0	- 8.2	- 8.4	- 8.6	- 8.8	- 8.9	- 9.1	- 9.3	- 9.6	-10.0	-10.3	50
3 0	- 6.4	- 6.6	- 6.8	- 7.0	- 7.2	- 7.4	- 7.6	- 7.8	- 8.0	- 8.2	- 8.4	- 8.5	- 8.7	- 9.1	- 9.4	- 9.7	3 0
20	- 5.4	- 5.6	- 5.8	- 6.0	- 6.2	- 6.4	- 6.6	- 6.8	- 7.0	- 7.1	- 7.3	- 7.5	- 7.7	- 8.0	- 8.3	- 8.6	20
40	- 4.4	- 4.7	- 4.9	- 5.1	- 5.3	- 5.5	- 5.7	- 5.8	- 6.0	- 6.2	- 6.4	- 6.6	- 6.7	- 7.1	- 7.4	- 7.7	40
4 0	- 3.6	- 3.8	- 4.1	- 4.3	- 4.5	- 4.7	- 4.8	- 5.0	- 5.2	- 5.4	- 5.6	- 5.7	- 5.9	- 6.2	- 6.6	- 6.9	4 0
20	- 2.9	- 3.1	- 3.3	- 3.5	- 3.7	- 3.9	- 4.1	- 4.3	- 4.5	- 4.7	- 4.8	- 5.0	- 5.2	- 5.5	- 5.8	- 6.1	20
40	- 2.3	- 2.5	- 2.7	- 2.9	- 3.1	- 3.3	- 3.5	- 3.7	- 3.8	- 4.0	- 4.2	- 4.4	- 4.5	- 4.9	- 5.2	- 5.5	40
5 0	- 1.7	- 1.9	- 2.1	- 2.3	- 2.5	- 2.7	- 2.9	- 3.1	- 3.2	- 3.4	- 3.6	- 3.8	- 3.9	- 4.3	- 4.6	- 4.9	5 0
20	- 1.1	- 1.4	- 1.6	- 1.8	- 2.0	- 2.2	- 2.3	- 2.5	- 2.7	- 2.9	- 3.1	- 3.2	- 3.4	- 3.7	- 4.0	- 4.4	20
40	- 0.7	- 0.9	- 1.1	- 1.3	- 1.5	- 1.7	- 1.9	- 2.0	- 2.2	- 2.4	- 2.6	- 2.7	- 2.9	- 3.2	- 3.6	- 3.9	40
6 0	- 0.2	- 0.4	- 0.7	- 0.9	- 1.0	- 1.2	- 1.4	- 1.6	- 1.8	- 2.0	- 2.1	- 2.3	- 2.5	- 2.8	- 3.1	- 3.4	6 0

第 3 改正　（氣壓ニ對スル改正）

測高度 Obs. Alt.	氣壓													測高度 Obs. Alt.
	720mm 28″.35	725mm 28″.54	730mm 28″.74	735mm 28″.94	740mm 29″.13	745mm 29″.33	750mm 29″.53	755mm 29″.72	760mm 29″.92	765mm 30″.12	770mm 30″.32	775mm 30″.51	780mm 30″.71	
	測高度ニ加減													
° ′	′	′	′	′	′	′	′	′	′	′	′	′	′	° ′
0 0	+2.2	+1.9	+1.7	+1.4	+1.1	+0.9	+0.6	+0.4	+0.1	−0.2	−0.4	−0.7	−0.9	0 0
10	+2.0	+1.8	+1.5	+1.3	+1.1	+0.8	+0.6	+0.3	+0.1	−0.1	−0.4	−0.6	−0.9	10
20	+1.9	+1.7	+1.4	+1.2	+1.0	+0.8	+0.5	+0.3	+0.1	−0.1	−0.4	−0.6	−0.8	20
30	+1.8	+1.6	+1.4	+1.1	+0.9	+0.7	+0.5	+0.3	+0.1	−0.1	−0.3	−0.5	−0.8	30
40	+1.7	+1.5	+1.3	+1.1	+0.9	+0.7	+0.5	+0.3	+0.1	−0.1	−0.3	−0.5	−0.7	40
50	+1.6	+1.4	+1.2	+1.0	+0.8	+0.6	+0.4	+0.3	+0.1	−0.1	−0.3	−0.5	−0.7	50
1 0	+1.5	+1.3	+1.1	+0.9	+0.8	+0.6	+0.4	+0.2	+0.1	−0.1	−0.3	−0.5	−0.6	1 0
20	+1.3	+1.2	+1.0	+0.8	+0.7	+0.5	+0.4	+0.2	+0.1	−0.1	−0.3	−0.4	−0.6	20
40	+1.2	+1.0	+0.9	+0.8	+0.6	+0.5	+0.3	+0.2	+0.1	−0.1	−0.2	−0.4	−0.5	40
2 0	+1.1	+0.9	+0.8	+0.7	+0.6	+0.4	+0.3	+0.2	+0.1	−0.1	−0.2	−0.3	−0.5	2 0
30	+0.9	+0.8	+0.7	+0.6	+0.5	+0.4	+0.3	+0.2	0.0	−0.1	−0.2	−0.3	−0.4	30
3 0	+0.8	+0.7	+0.6	+0.5	+0.4	+0.3	+0.2	+0.1	0.0	−0.1	−0.2	−0.3	−0.4	3 0
4 0	+0.7	+0.6	+0.5	+0.4	+0.4	+0.3	+0.2	+0.1	0.0	−0.1	−0.1	−0.2	−0.3	4 0
5 0	+0.6	+0.5	+0.4	+0.4	+0.3	+0.2	+0.2	+0.1	0.0	0.0	−0.1	−0.2	−0.2	5 0
6 0	+0.5	+0.4	+0.4	+0.3	+0.3	+0.2	+0.1	+0.1	0.0	0.0	−0.1	−0.1	−0.2	6 0

第 4 改正　（視半徑ニ對スル改正）　測高度ニ加減

	1 月	2 月	3 月	4 月	5 月	6 月	7 月	8 月	9 月	10 月	11 月	12 月
下邊⊙	+ 0′.5	+ 0′.5	+ 0′.4	+ 0′.2	+ 0′.1	0′.0	0′.0	+ 0′.1	+ 0′.2	+ 0′.3	+ 0′.5	+ 0′.5
上邊⊙	−32′.0	−32′.0	−31′.9	−31′.7	−31′.6	−31′.5	−31′.5	−31′.6	−31′.7	−31′.8	−32′.0	−32′.0

氣溫ト水溫トガ異ル場合ハ、本表ニ依リテ高度ヲ改正シタル後、第196頁下方ニ記セル眼高差ノ變化ニ對スル改正ヲ施スベシ。

第 2 表 II　⊙ 太陽ノ測高度改正表

第 1 改 正

測高度 Obs. Alt.	眼高 来 (m)、呎 (′)																	測高度 Obs. Alt.
	0m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m		
	0′	10′	13′	16′	20′	23′	26′	30′	33′	36′	39′	43′	46′	49′	52′	56′		
	測高度ニ加 (+)																	
° ′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	° ′
6 0	7.5	4.3	3.8	3.4	3.0	2.7	2.3	2.0	1.7	1.4	1.2	0.9	0.7	0.4	0.2	0.0		6 0
20	7.8	4.7	4.2	3.8	3.4	3.1	2.7	2.4	2.1	1.8	1.6	1.3	1.1	0.8	0.6	0.4		20
40	8.2	5.1	4.6	4.2	3.8	3.4	3.1	2.8	2.5	2.2	1.9	1.7	1.4	1.2	1.0	0.8		40
7 0	8.5	5.4	4.9	4.5	4.1	3.8	3.4	3.1	2.8	2.5	2.3	2.0	1.8	1.5	1.3	1.1		7 0
20	8.8	5.7	5.2	4.8	4.4	4.1	3.7	3.4	3.1	2.9	2.6	2.3	2.1	1.8	1.6	1.4		20
40	9.1	6.0	5.5	5.1	4.7	4.3	4.0	3.7	3.4	3.1	2.9	2.6	2.4	2.1	1.9	1.7		40
8 0	9.4	6.3	5.8	5.4	5.0	4.6	4.3	4.0	3.7	3.4	3.1	2.9	2.6	2.4	2.2	2.0		8 0
20	9.6	6.5	6.0	5.6	5.2	4.9	4.5	4.2	3.9	3.7	3.4	3.1	2.9	2.6	2.4	2.2		20
40	9.8	6.7	6.2	5.8	5.4	5.1	4.8	4.4	4.1	3.9	3.6	3.4	3.1	2.9	2.7	2.4		40
9 0	10.0	6.9	6.5	6.0	5.6	5.3	5.0	4.7	4.4	4.1	3.8	3.6	3.3	3.1	2.9	2.6		9 0
20	10.2	7.1	6.7	6.2	5.8	5.5	5.2	4.9	4.6	4.3	4.0	3.8	3.5	3.3	3.1	2.8		20
40	10.4	7.3	6.8	6.4	6.0	5.7	5.4	5.0	4.7	4.5	4.2	4.0	3.7	3.5	3.3	3.0		40
10 0	10.6	7.5	7.0	6.6	6.2	5.9	5.5	5.2	4.9	4.7	4.4	4.1	3.9	3.7	3.4	3.2		10 0
30	10.8	7.7	7.3	6.8	6.5	6.1	5.8	5.5	5.2	4.9	4.6	4.4	4.1	3.9	3.7	3.5		30
11 0	11.1	8.0	7.5	7.1	6.7	6.3	6.0	5.7	5.4	5.1	4.9	4.6	4.4	4.1	3.9	3.7		11 0
30	11.3	8.2	7.7	7.3	6.9	6.5	6.2	5.9	5.6	5.3	5.1	4.8	4.6	4.3	4.1	3.9		30
12 0	11.5	8.4	7.9	7.5	7.1	6.7	6.4	6.1	5.8	5.5	5.3	5.0	4.8	4.5	4.3	4.1		12 0
30	11.6	8.5	8.1	7.6	7.3	6.9	6.6	6.3	6.0	5.7	5.4	5.2	4.9	4.7	4.5	4.3		30
13 0	11.8	8.7	8.2	7.8	7.4	7.1	6.7	6.4	6.1	5.9	5.6	5.4	5.1	4.9	4.7	4.4		13 0
30	11.9	8.8	8.4	8.0	7.6	7.2	6.9	6.6	6.3	6.0	5.8	5.5	5.3	5.0	4.8	4.6		30
14 0	12.1	9.0	8.5	8.1	7.7	7.4	7.0	6.7	6.4	6.2	5.9	5.7	5.4	5.2	4.9	4.7		14 0
30	12.2	9.1	8.7	8.2	7.9	7.5	7.2	6.9	6.6	6.3	6.0	5.8	5.5	5.3	5.1	4.9		30
15 0	12.3	9.3	8.8	8.4	8.0	7.6	7.3	7.0	6.7	6.4	6.2	5.9	5.7	5.4	5.2	5.0		15 0
16 0	12.6	9.5	9.0	8.6	8.2	7.8	7.5	7.2	6.9	6.7	6.4	6.1	5.9	5.7	5.4	5.2		16 0
17 0	12.8	9.7	9.2	8.8	8.4	8.1	7.7	7.4	7.1	6.9	6.6	6.4	6.1	5.9	5.6	5.4		17 0
18 0	12.9	9.9	9.4	9.0	8.6	8.2	7.9	7.6	7.3	7.0	6.8	6.5	6.3	6.1	5.8	5.6		18 0
19 0	13.1	10.0	9.6	9.1	8.7	8.4	8.1	7.8	7.5	7.2	6.9	6.7	6.4	6.2	6.0	5.8		19 0
20 0	13.3	10.2	9.7	9.3	8.9	8.6	8.2	7.9	7.6	7.4	7.1	6.9	6.6	6.4	6.2	5.9		20 0
22 0	13.5	10.4	10.0	9.5	9.1	8.8	8.5	8.2	7.9	7.6	7.3	7.1	6.8	6.6	6.4	6.2		22 0
24 0	13.7	10.6	10.2	9.8	9.4	9.0	8.7	8.4	8.1	7.8	7.6	7.3	7.1	6.8	6.6	6.4		24 0
26 0	13.9	10.8	10.4	9.9	9.6	9.2	8.9	8.6	8.3	8.0	7.8	7.5	7.3	7.0	6.8	6.6		26 0
28 0	14.1	11.0	10.5	10.1	9.7	9.4	9.0	8.7	8.4	8.2	7.9	7.7	7.4	7.2	7.0	6.7		28 0
30 0	14.2	11.1	10.7	10.2	9.9	9.5	9.2	8.9	8.6	8.3	8.1	7.8	7.6	7.3	7.1	6.9		30 0
32 0	14.3	11.2	10.8	10.4	10.0	9.6	9.3	9.0	8.7	8.4	8.2	7.9	7.7	7.4	7.2	7.0		32 0
34 0	14.4	11.4	10.9	10.5	10.1	9.7	9.4	9.1	8.8	8.5	8.3	8.0	7.8	7.6	7.3	7.1		34 0
36 0	14.5	11.5	11.0	10.6	10.2	9.8	9.5	9.2	8.9	8.6	8.4	8.1	7.9	7.7	7.4	7.2		36 0
38 0	14.6	11.5	11.1	10.7	10.3	9.9	9.6	9.3	9.0	8.7	8.5	8.2	8.0	7.7	7.5	7.3		38 0
40 0	14.7	11.6	11.2	10.7	10.4	10.0	9.7	9.4	9.1	8.8	8.6	8.3	8.1	7.8	7.6	7.4		40 0
45 0	14.9	11.8	11.3	10.9	10.5	10.2	9.9	9.6	9.3	9.0	8.7	8.5	8.2	8.0	7.8	7.6		45 0
50 0	15.0	12.0	11.5	11.1	10.7	10.3	10.0	9.7	9.4	9.1	8.9	8.6	8.4	8.2	7.9	7.7		50 0
55 0	15.2	12.1	11.6	11.2	10.8	10.5	10.1	9.8	9.5	9.3	9.0	8.8	8.5	8.3	8.1	7.8		55 0
60 0	15.3	12.2	11.7	11.3	10.9	10.6	10.2	9.9	9.6	9.4	9.1	8.9	8.6	8.4	8.2	7.9		60 0
65 0	15.4	12.3	11.8	11.4	11.0	10.7	10.3	10.0	9.7	9.5	9.2	9.0	8.7	8.5	8.3	8.0		65 0
70 0	15.4	12.4	11.9	11.5	11.1	10.7	10.4	10.1	9.8	9.6	9.3	9.0	8.8	8.6	8.3	8.1		70 0
75 0	15.5	12.4	12.0	11.6	11.2	10.8	10.5	10.2	9.9	9.6	9.4	9.1	8.9	8.6	8.4	8.2		75 0
80 0	15.6	12.5	12.1	11.6	11.3	10.9	10.6	10.3	10.0	9.7	9.5	9.2	9.0	8.7	8.5	8.3		80 0
85 0	15.7	12.6	12.1	11.7	11.3	11.0	10.7	10.3	10.1	9.8	9.5	9.3	9.0	8.8	8.6	8.4		85 0
90 0	15.8	12.7	12.2	11.8	11.4	11.0	10.7	10.4	10.1	9.9	9.6	9.3	9.1	8.9	8.6	8.4		90 0
眼高差	0.0	3.1	3.6	4.0	4.4	4.7	5.0	5.3	5.6	5.9	6.2	6.4	6.6	6.9	7.1	7.3		眼高差
視地平距離	0.0	3.6	4.1	4.6	5.1	5.5	5.9	6.2	6.6	6.9	7.2	7.5	7.8	8.0	8.3	8.5		視地平距離

第 2 改 正　(視半徑ニ對スル改正)　測高度ニ加減

	1 月	2 月	3 月	4 月	5 月	6 月	7 月	8 月	9 月	10 月	11 月	12 月
下邊⊙	+ 0′.5	+ 0′.5	+ 0′.4	+ 0′.2	+ 0′.1	0′.0	0′.0	+ 0′.1	+ 0′.2	+ 0′.3	+ 0′.5	+ 0′.5
上邊⊙	−32′.0	−32′.0	−31′.9	−31′.7	−31′.6	−31′.5	−31′.5	−31′.6	−31′.7	−31′.8	−32′.0	−32′.0

氣溫ト水溫トガ異ル場合ハ、本表ニ依リテ高度ヲ改正シタル後、第196頁下方ニ記セル眼高差ノ變化ニ對スル改正ヲ施スベシ。

第 2 表 II　⊙ 太陽ノ測高度改正表

第 1 改 正

測高度 Obs. Alt.	眼高 来 (m)、呎 (′)																	測高度 Obs. Alt.
	17m	18m	19m	20m	21m	22m	23m	24m	25m	26m	27m	28m	29m	30m	32m	34m	36m	
	56′	59′	62′	66′	69′	72′	75′	79′	82′	85′	89′	92′	95′	98′	105′	112′	118′	
	測高度ニ加 (+)																	
° ′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	° ′
6 0	0.0	−0.2	−0.4	−0.7	−0.9	−1.0	−1.2	−1.4	−1.6	−1.8	−2.0	−2.1	−2.3	−2.5	−2.8	−3.1	−3.4	6 0
20	+0.4	+0.2	0.0	−0.2	−0.4	−0.6	−0.8	−1.0	−1.2	−1.4	−1.6	−1.7	−1.9	−2.1	−2.4	−2.7	−3.0	20
40	0.8	0.5	+0.3	+0.1	−0.1	−0.3	−0.5	−0.7	−0.8	−1.0	−1.2	−1.4	−1.5	−1.7	−2.0	−2.3	−2.6	40
7 0	1.1	0.9	0.7	0.5	+0.3	+0.1	−0.1	−0.3	−0.5	−0.7	−0.8	−1.0	−1.2	−1.4	−1.7	−2.0	−2.3	7 0
20	1.4	1.2	1.0	0.8	0.6	0.4	+0.2	0.0	−0.2	−0.4	−0.5	−0.7	−0.9	−1.0	−1.4	−1.7	−2.0	20
40	1.7	1.5	1.3	1.1	0.9	0.7	0.5	+0.3	+0.1	−0.1	−0.3	−0.4	−0.6	−0.8	−1.1	−1.4	−1.7	40
8 0	2.0	1.7	1.5	1.3	1.1	0.9	0.7	0.6	0.4	+0.2	0.0	−0.2	−0.3	−0.5	−0.8	−1.1	−1.4	8 0
20	2.2	2.0	1.8	1.6	1.4	1.2	1.0	0.8	0.6	0.4	+0.3	+0.1	−0.1	−0.2	−0.6	−0.9	−1.2	20
40	2.4	2.2	2.0	1.8	1.6	1.4	1.2	1.0	0.9	0.7	0.5	0.3	+0.2	0.0	−0.3	−0.6	−0.9	40
9 0	2.6	2.4	2.2	2.0	1.8	1.6	1.4	1.3	1.1	0.9	0.7	0.5	0.4	+0.2	−0.1	−0.4	−0.7	9 0
20	2.8	2.6	2.4	2.2	2.0	1.8	1.6	1.5	1.3	1.1	0.9	0.7	0.6	0.4	+0.1	−0.2	−0.5	20
40	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.6	1.5	1.3	1.1	0.9	0.8	0.6	0.3	0.0	−0.3	40
10 0	3.2	3.0	2.8	2.6	2.4	2.2	2.0	1.8	1.6	1.5	1.3	1.1	1.0	0.8	0.5	+0.2	−0.2	10 0
30	3.5	3.3	3.0	2.8	2.6	2.4	2.3	2.1	1.9	1.7	1.5	1.4	1.2	1.0	0.7	0.4	+0.1	30
11 0	3.7	3.5	3.3	3.1	2.9	2.7	2.5	2.3	2.1	1.9	1.8	1.6	1.4	1.3	0.9	0.6	0.3	11 0
30	3.9	3.7	3.5	3.3	3.1	2.9	2.7	2.5	2.3	2.1	2.0	1.8	1.6	1.5	1.2	0.8	0.5	30
12 0	4.1	3.9	3.7	3.5	3.3	3.1	2.9	2.7	2.5	2.3	2.2	2.0	1.8	1.7	1.3	1.0	0.7	12 0
30	4.3	4.1	3.8	3.6	3.4	3.3	3.1	2.9	2.7	2.5	2.4	2.2	2.0	1.8	1.5	1.2	0.9	30
13 0	4.4	4.2	4.0	3.8	3.6	3.4	3.2	3.0	2.9	2.7	2.5	2.3	2.2	2.0	1.7	1.4	1.1	13 0
30	4.6	4.4	4.2	4.0	3.8	3.6	3.4	3.2	3.0	2.8	2.7	2.5	2.3	2.2	1.8	1.5	1.2	30
14 0	4.7	4.5	4.3	4.1	3.9	3.7	3.5	3.3	3.2	3.0	2.8	2.6	2.5	2.3	2.0	1.7	1.4	14 0
30	4.9	4.7	4.4	4.2	4.0	3.9	3.7	3.5	3.3	3.1	2.9	2.8	2.6	2.4	2.1	1.8	1.5	30
15 0	5.0	4.8	4.6	4.4	4.2	4.0	3.8	3.6	3.4	3.3	3.1	2.9	2.8	2.6	2.3	2.0	1.7	15 0
16 0	5.2	5.0	4.8	4.6	4.4	4.2	4.0	3.8	3.6	3.5	3.3	3.1	3.0	2.8	2.5	2.2	1.9	16 0
17 0	5.4	5.2	5.0	4.8	4.6	4.4	4.2	4.0	3.9	3.7	3.5	3.3	3.2	3.0	2.7	2.4	2.1	17 0
18 0	5.6	5.4	5.2	5.0	4.8	4.6	4.4	4.2	4.0	3.9	3.7	3.5	3.4	3.2	2.9	2.6	2.3	18 0
19 0	5.8	5.6	5.4	5.1	4.9	4.8	4.6	4.4	4.2	4.0	3.9	3.7	3.5	3.4	3.0	2.7	2.4	19 0
20 0	5.9	5.7	5.5	5.3	5.1	4.9	4.7	4.5	4.4	4.2	4.0	3.8	3.7	3.5	3.2	2.9	2.6	20 0
22 0	6.2	6.0	5.8	5.6	5.4	5.2	5.0	4.8	4.6	4.4	4.3	4.1	3.9	3.8	3.4	3.1	2.8	22 0
24 0	6.4	6.2	6.0	5.8	5.6	5.4	5.2	5.0	4.8	4.7	4.5	4.3	4.2	4.0	3.7	3.4	3.1	24 0
26 0	6.6	6.4	6.2	6.0	5.8	5.6	5.4	5.2	5.0	4.8	4.7	4.5	4.3	4.2	3.8	3.5	3.2	26 0
28 0	6.7	6.5	6.3	6.1	5.9	5.7	5.5	5.4	5.2	5.0	4.8	4.7	4.5	4.3	4.0	3.7	3.4	28 0
30 0	6.9	6.7	6.5	6.3	6.1	5.9	5.7	5.5	5.3	5.1	5.0	4.8	4.6	4.5	4.1	3.8	3.5	30 0
32 0	7.0	6.8	6.6	6.4	6.2	6.0	5.8	5.6	5.4	5.3	5.1	4.9	4.8	4.6	4.3	4.0	3.7	32 0
34 0	7.1	6.9	6.7	6.5	6.3	6.1	5.9	5.7	5.6	5.4	5.2	5.0	4.9	4.7	4.4	4.1	3.8	34 0
36 0	7.2	7.0	6.8	6.6	6.4	6.2	6.0	5.8	5.7	5.5	5.3	5.1	5.0	4.8	4.5	4.2	3.9	36 0
38 0	7.3	7.1	6.9	6.7	6.5	6.3	6.1	5.9	5.7	5.6	5.4	5.2	5.1	4.9	4.6	4.3	4.0	38 0
40 0	7.4	7.2	7.0	6.8	6.6	6.4	6.2	6.0	5.8	5.6	5.5	5.3	5.1	5.0	4.7	4.3	4.0	40 0
45 0	7.6	7.4	7.1	6.9	6.7	6.6	6.4	6.2	6.0	5.8	5.7	5.5	5.3	5.2	4.8	4.5	4.2	45 0
50 0	7.7	7.5	7.3	7.1	6.9	6.7	6.5	6.3	6.2	6.0	5.8	5.6	5.5	5.3	5.0	4.7	4.4	50 0
55 0	7.8	7.6	7.4	7.2	7.0	6.8	6.6	6.5	6.3	6.1	5.9	5.8	5.6	5.4	5.1	4.8	4.5	55 0
60 0	7.9	7.7	7.5	7.3	7.1	6.9	6.7	6.6	6.4	6.2	6.0	5.9	5.7	5.5	5.2	4.9	4.6	60 0
65 0	8.0	7.8	7.6	7.4	7.2	7.0	6.8	6.7	6.5	6.3	6.1	6.0	5.8	5.6	5.3	5.0	4.7	65 0
70 0	8.1	7.9	7.7	7.5	7.3	7.1	6.9	6.7	6.6	6.4	6.2	6.0	5.9	5.7	5.4	5.1	4.8	70 0
75 0	8.2	8.0	7.8	7.6	7.4	7.2	7.0	6.8	6.6	6.5	6.3	6.1	6.0	5.8	5.5	5.2	4.9	75 0
80 0	8.3	8.1	7.9	7.7	7.5	7.3	7.1	6.9	6.7	6.5	6.4	6.2	6.0	5.9	5.6	5.2	4.9	80 0
85 0	8.4	8.1	7.9	7.7	7.5	7.3	7.2	7.0	6.8	6.6	6.4	6.3	6.1	5.9	5.6	5.3	5.0	85 0
90 0	8.4	8.2	8.0	7.8	7.6	7.4	7.2	7.0	6.9	6.7	6.5	6.3	6.2	6.0	5.7	5.4	5.1	90 0
眼高差	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.2	9.4	9.6	9.7	10.0	10.4	10.7	眼高差
視地平距離	8.5	8.8	9.0	9.3	9.5	9.7	9.9	10.2	10.4	10.6	10.8	11.0	11.2	11.4	11.7	12.1	12.4	視地平距離

第 2 改 正　(視半徑ニ對スル改正)　測高度ニ加減

	1 月	2 月	3 月	4 月	5 月	6 月	7 月	8 月	9 月	10 月	11 月	12 月
下邊⊙	+ 0′.5	+ 0′.5	+ 0′.4	+ 0′.2	+ 0′.1	0′.0	0′.0	+ 0′.1	+ 0′.2	+ 0′.3	+ 0′.5	+ 0′.5
上邊⊙	−32′.0	−32′.0	−31′.9	−31′.7	−31′.6	−31′.5	−31′.5	−31′.6	−31′.7	−31′.8	−32′.0	−32′.0

氣溫ト水溫トガ異ル場合ハ、本表ニ依リテ高度ヲ改正シタル後、第196頁下方ニ記セル眼高差ノ變化ニ對スル改正ヲ施スベシ。

第 3 表　＊(P) 星ノ測高度改正表

第 1 改 正

測高度 Obs. Alt.	眼高 米(m)、呎(′)																測高度 Obs. Alt.
	0m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	
	0′	10′	13′	16′	20′	23′	26′	30′	33′	36′	39′	43′	46′	49′	52′	56′	
	測高度ヨリ減(−)																
° ′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	° ′
6 0	8.4	11.5	12.0	12.4	12.8	13.1	13.5	13.8	14.1	14.3	14.6	14.8	15.1	15.3	15.5	15.8	6 0
20	8.1	11.1	11.6	12.0	12.4	12.8	13.1	13.4	13.7	13.9	14.2	14.5	14.7	14.9	15.2	15.4	20
40	7.7	10.8	11.3	11.7	12.1	12.4	12.7	13.0	13.3	13.6	13.9	14.1	14.4	14.6	14.8	15.0	40
7 0	7.4	10.5	10.9	11.3	11.7	12.1	12.4	12.7	13.0	13.3	13.5	13.8	14.0	14.3	14.5	14.7	7 0
20	7.1	10.2	10.6	11.0	11.4	11.8	12.1	12.4	12.7	13.0	13.2	13.5	13.7	14.0	14.2	14.4	20
40	6.8	9.9	10.3	10.8	11.1	11.5	11.8	12.1	12.4	12.7	12.9	13.2	13.4	13.7	13.9	14.1	40
8 0	6.5	9.6	10.1	10.5	10.9	11.2	11.6	11.9	12.2	12.4	12.7	12.9	13.2	13.4	13.6	13.9	8 0
20	6.3	9.4	9.8	10.3	10.6	11.0	11.3	11.6	11.9	12.2	12.4	12.7	12.9	13.2	13.4	13.6	20
40	6.1	9.2	9.6	10.0	10.4	10.8	11.1	11.4	11.7	12.0	12.2	12.5	12.7	13.0	13.2	13.4	40
9 0	5.9	8.9	9.4	9.8	10.2	10.6	10.9	11.2	11.5	11.8	12.0	12.3	12.5	12.7	13.0	13.2	9 0
20	5.7	8.7	9.2	9.6	10.0	10.4	10.7	11.0	11.3	11.6	11.8	12.1	12.3	12.5	12.8	13.0	20
40	5.5	8.6	9.0	9.4	9.8	10.2	10.5	10.8	11.1	11.4	11.6	11.9	12.1	12.4	12.6	12.8	40
10 0	5.3	8.4	8.9	9.3	9.7	10.0	10.3	10.6	10.9	11.2	11.5	11.7	12.0	12.2	12.4	12.6	10 0
30	5.1	8.1	8.6	9.0	9.4	9.8	10.1	10.4	10.7	11.0	11.2	11.5	11.7	11.9	12.2	12.4	30
11 0	4.8	7.9	8.4	8.8	9.2	9.5	9.9	10.2	10.5	10.7	11.0	11.2	11.5	11.7	11.9	12.2	11 0
30	4.6	7.7	8.2	8.6	9.0	9.3	9.7	10.0	10.3	10.5	10.8	11.0	11.3	11.5	11.7	12.0	30
12 0	4.4	7.5	8.0	8.4	8.8	9.1	9.5	9.8	10.1	10.3	10.6	10.8	11.1	11.3	11.5	11.8	12 0
30	4.3	7.4	7.8	8.2	8.6	9.0	9.3	9.6	9.9	10.2	10.4	10.7	10.9	11.2	11.4	11.6	30
13 0	4.1	7.2	7.7	8.1	8.5	8.8	9.1	9.4	9.7	10.0	10.3	10.5	10.8	11.0	11.2	11.4	13 0
30	4.0	7.0	7.5	7.9	8.3	8.7	9.0	9.3	9.6	9.8	10.1	10.4	10.6	10.8	11.1	11.3	30
14 0	3.8	6.9	7.4	7.8	8.2	8.5	8.8	9.1	9.4	9.7	10.0	10.2	10.5	10.7	10.9	11.1	14 0
30	3.7	6.8	7.2	7.7	8.0	8.4	8.7	9.0	9.3	9.6	9.8	10.1	10.3	10.6	10.8	11.0	30
15 0	3.6	6.6	7.1	7.5	7.9	8.3	8.6	8.9	9.2	9.4	9.7	10.0	10.2	10.4	10.7	10.9	15 0
16 0	3.3	6.4	6.9	7.3	7.7	8.0	8.4	8.7	9.0	9.2	9.5	9.7	10.0	10.2	10.4	10.7	16 0
17 0	3.1	6.2	6.7	7.1	7.5	7.8	8.2	8.5	8.8	9.0	9.3	9.5	9.8	10.0	10.2	10.5	17 0
18 0	3.0	6.0	6.5	6.9	7.3	7.7	8.0	8.3	8.6	8.8	9.1	9.4	9.6	9.8	10.1	10.3	18 0
19 0	2.8	5.9	6.3	6.8	7.1	7.5	7.8	8.1	8.4	8.7	8.9	9.2	9.4	9.7	9.9	10.1	19 0
20 0	2.6	5.7	6.2	6.6	7.0	7.3	7.7	8.0	8.3	8.5	8.8	9.0	9.3	9.5	9.7	10.0	20 0
22 0	2.4	5.5	5.9	6.4	6.7	7.1	7.4	7.7	8.0	8.3	8.5	8.8	9.0	9.3	9.5	9.7	22 0
24 0	2.2	5.2	5.7	6.1	6.5	6.9	7.2	7.5	7.8	8.1	8.3	8.6	8.8	9.0	9.3	9.5	24 0
26 0	2.0	5.1	5.5	5.9	6.3	6.7	7.0	7.3	7.6	7.9	8.1	8.4	8.6	8.9	9.1	9.3	26 0
28 0	1.8	4.9	5.4	5.8	6.2	6.5	6.8	7.1	7.4	7.7	8.0	8.2	8.5	8.7	8.9	9.1	28 0
30 0	1.7	4.8	5.2	5.6	6.0	6.4	6.7	7.0	7.3	7.6	7.8	8.1	8.3	8.6	8.8	9.0	30 0
32 0	1.5	4.6	5.1	5.5	5.9	6.2	6.6	6.9	7.2	7.4	7.7	7.9	8.2	8.4	8.6	8.9	32 0
34 0	1.4	4.5	5.0	5.4	5.8	6.1	6.5	6.8	7.1	7.3	7.6	7.8	8.1	8.3	8.5	8.8	34 0
36 0	1.3	4.4	4.9	5.3	5.7	6.0	6.4	6.7	7.0	7.2	7.5	7.7	8.0	8.2	8.4	8.7	36 0
38 0	1.2	4.3	4.8	5.2	5.6	5.9	6.3	6.6	6.9	7.1	7.4	7.6	7.9	8.1	8.3	8.6	38 0
40 0	1.2	4.2	4.7	5.1	5.5	5.9	6.2	6.5	6.8	7.0	7.3	7.6	7.8	8.0	8.3	8.5	40 0
45 0	1.0	4.1	4.5	4.9	5.3	5.7	6.0	6.3	6.6	6.9	7.1	7.4	7.6	7.9	8.1	8.3	45 0
50 0	0.8	3.9	4.4	4.8	5.2	5.5	5.8	6.1	6.4	6.7	7.0	7.2	7.5	7.7	7.9	8.1	50 0
55 0	0.7	3.8	4.2	4.7	5.0	5.4	5.7	6.0	6.3	6.6	6.8	7.1	7.3	7.6	7.8	8.0	55 0
60 0	0.6	3.6	4.1	4.5	4.9	5.3	5.6	5.9	6.2	6.5	6.7	7.0	7.2	7.4	7.7	7.9	60 0
65 0	0.5	3.5	4.0	4.4	4.8	5.2	5.5	5.8	6.1	6.3	6.6	6.9	7.1	7.3	7.6	7.8	65 0
70 0	0.4	3.4	3.9	4.3	4.7	5.1	5.4	5.7	6.0	6.2	6.5	6.8	7.0	7.2	7.5	7.7	70 0
75 0	0.3	3.3	3.8	4.2	4.6	5.0	5.3	5.6	5.9	6.2	6.4	6.7	6.9	7.1	7.4	7.6	75 0
80 0	0.2	3.3	3.7	4.1	4.5	4.9	5.2	5.5	5.8	6.1	6.3	6.6	6.8	7.1	7.3	7.5	80 0
85 0	0.1	3.2	3.6	4.1	4.4	4.8	5.1	5.4	5.7	6.0	6.2	6.5	6.7	7.0	7.2	7.4	85 0
90 0	0.0	3.1	3.6	4.0	4.4	4.7	5.0	5.3	5.6	5.9	6.2	6.4	6.7	6.9	7.1	7.3	90 0

第 2 改 正　　P (惑星ノミ)

測高度ニ加	測高度 Obs. Alt.	惑星地平視差 H.P. 0′.1	0′.2	0′.3	0′.4	0′.5	0′.6	測高度 Obs. Alt.	測高度ニ加
	°	′	′	′	′	′	′	°	
	10	0.1	0.2	0.3	0.4	0.5	0.6	10	
	30	0.1	0.2	0.3	0.3	0.4	0.5	30	
	50	0.1	0.1	0.2	0.2	0.3	0.4	50	
	70	0.0	0.1	0.1	0.1	0.2	0.2	70	
	90	0.0	0.0	0.0	0.0	0.0	0.0	90	

氣温ト水温トガ異ル場合ハ、本表ニ依リテ高度ヲ改正シタル後、第196頁下方ニ記セル眼高差ノ變化ニ對スル改正ヲ施スベシ。

第 3 表　＊(P) 星ノ測高度改正表

第 1 改 正

測高度 Obs. Alt.	眼高 米(m)、呎(′)																測高度 Obs. Alt.
	17m	18m	19m	20m	21m	22m	23m	24m	25m	26m	27m	28m	29m	30m	32m	34m	36m	
	56′	59′	62′	66′	69′	72′	75′	79′	82′	85′	89′	92′	95′	98′	105′	112′	118′	
	測高度ヨリ減(−)																	
° ′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	° ′
6 0	15.8	16.0	16.2	16.4	16.6	16.8	17.0	17.1	17.3	17.5	17.7	17.8	18.0	18.2	18.5	18.8	19.1	6 0
20	15.4	15.6	15.8	16.0	16.2	16.4	16.6	16.8	16.9	17.1	17.3	17.5	17.6	17.8	18.1	18.4	18.7	20
40	15.0	15.2	15.4	15.6	15.8	16.0	16.2	16.4	16.6	16.8	16.9	17.1	17.3	17.4	17.8	18.1	18.4	40
7 0	14.7	14.9	15.1	15.3	15.5	15.7	15.9	16.1	16.3	16.4	16.6	16.8	16.9	17.1	17.4	17.7	18.0	7 0
20	14.4	14.6	14.8	15.0	15.2	15.4	15.6	15.8	16.0	16.1	16.3	16.5	16.6	16.8	17.1	17.4	17.7	20
40	14.1	14.3	14.5	14.7	14.9	15.1	15.3	15.5	15.7	15.9	16.0	16.2	16.4	16.5	16.8	17.2	17.5	40
8 0	13.9	14.1	14.3	14.5	14.7	14.9	15.1	15.2	15.4	15.6	15.8	15.9	16.1	16.3	16.6	16.9	17.2	8 0
20	13.6	13.8	14.0	14.2	14.4	14.6	14.8	15.0	15.2	15.4	15.5	15.7	15.9	16.0	16.3	16.7	17.0	20
40	13.4	13.6	13.8	14.0	14.2	14.4	14.6	14.8	15.0	15.1	15.3	15.5	15.6	15.8	16.1	16.4	16.7	40
9 0	13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.6	14.7	14.9	15.1	15.3	15.4	15.6	15.9	16.2	16.5	9 0
20	13.0	13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.5	14.7	14.9	15.1	15.2	15.4	15.7	16.0	16.3	20
40	12.8	13.0	13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.5	14.7	14.9	15.0	15.2	15.5	15.8	16.1	40
10 0	12.6	12.8	13.0	13.2	13.4	13.6	13.8	14.0	14.2	14.4	14.5	14.7	14.9	15.0	15.4	15.7	16.0	10 0
30	12.4	12.6	12.8	13.0	13.2	13.4	13.6	13.8	13.9	14.1	14.3	14.5	14.6	14.8	15.1	15.4	15.7	30
11 0	12.2	12.4	12.6	12.8	13.0	13.2	13.4	13.5	13.7	13.9	14.1	14.2	14.4	14.6	14.9	15.2	15.5	11 0
30	12.0	12.2	12.4	12.6	12.8	13.0	13.2	13.3	13.5	13.7	13.9	14.0	14.2	14.4	14.7	15.0	15.3	30
12 0	11.8	12.0	12.2	12.4	12.6	12.8	13.0	13.1	13.3	13.5	13.7	13.8	14.0	14.2	14.5	14.8	15.1	12 0
30	11.6	11.8	12.0	12.2	12.4	12.6	12.8	13.0	13.2	13.3	13.5	13.7	13.8	14.0	14.3	14.6	14.9	30
13 0	11.4	11.6	11.8	12.0	12.2	12.4	12.6	12.8	13.0	13.2	13.3	13.5	13.7	13.8	14.2	14.5	14.8	13 0
30	11.3	11.5	11.7	11.9	12.1	12.3	12.5	12.7	12.8	13.0	13.2	13.4	13.5	13.7	14.0	14.3	14.6	30
14 0	11.1	11.3	11.6	11.8	12.0	12.1	12.3	12.5	12.7	12.9	13.0	13.2	13.4	13.5	13.9	14.2	14.5	14 0
30	11.0	11.2	11.4	11.6	11.8	12.0	12.2	12.4	12.6	12.7	12.9	13.1	13.2	13.4	13.7	14.0	14.3	30
15 0	10.9	11.1	11.3	11.5	11.7	11.9	12.1	12.3	12.4	12.6	12.8	13.0	13.1	13.3	13.6	13.9	14.2	15 0
16 0	10.7	10.9	11.1	11.3	11.5	11.7	11.9	12.0	12.2	12.4	12.6	12.7	12.9	13.1	13.4	13.7	14.0	16 0
17 0	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.8	12.0	12.2	12.4	12.5	12.7	12.9	13.2	13.5	13.8	17 0
18 0	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.8	12.0	12.2	12.4	12.5	12.7	13.0	13.3	13.6	18 0
19 0	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7	11.8	12.0	12.2	12.3	12.5	12.8	13.1	13.4	19 0
20 0	10.0	10.2	10.4	10.6	10.8	11.0	11.2	11.3	11.5	11.7	11.9	12.0	12.2	12.4	12.7	13.0	13.3	20 0
22 0	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.4	11.6	11.8	11.9	12.1	12.4	12.7	13.0	22 0
24 0	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.0	11.2	11.4	11.6	11.7	11.9	12.2	12.5	12.8	24 0
26 0	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.0	11.2	11.4	11.5	11.7	12.0	12.3	12.6	26 0
28 0	9.1	9.3	9.6	9.8	10.0	10.1	10.3	10.5	10.7	10.9	11.0	11.2	11.4	11.5	11.9	12.2	12.5	28 0
30 0	9.0	9.2	9.4	9.6	9.8	10.0	10.2	10.4	10.6	10.7	10.9	11.1	11.2	11.4	11.7	12.0	12.3	30 0
32 0	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.2	10.4	10.6	10.8	10.9	11.1	11.3	11.6	11.9	12.2	32 0
34 0	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.1	10.3	10.5	10.7	10.8	11.0	11.2	11.5	11.8	12.1	34 0
36 0	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.0	10.2	10.4	10.6	10.7	10.9	11.1	11.4	11.7	12.0	36 0
38 0	8.6	8.8	9.0	9.2	9.4	9.6	9.8	9.9	10.1	10.3	10.5	10.6	10.8	11.0	11.3	11.6	11.9	38 0
40 0	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.0	10.2	10.4	10.6	10.7	10.9	11.2	11.5	11.8	40 0
45 0	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.0	10.2	10.4	10.5	10.7	11.0	11.3	11.6	45 0
50 0	8.1	8.3	8.6	8.8	9.0	9.1	9.3	9.5	9.7	9.9	10.0	10.2	10.4	10.5	10.9	11.2	11.5	50 0
55 0	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.7	9.9	10.1	10.2	10.4	10.7	11.0	11.3	55 0
60 0	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.4	9.6	9.8	10.0	10.1	10.3	10.6	10.9	11.2	60 0
65 0	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.2	9.3	9.5	9.7	9.9	10.0	10.2	10.5	10.8	11.1	65 0
70 0	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.2	9.4	9.6	9.8	9.9	10.1	10.4	10.7	11.0	70 0
75 0	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.1	9.3	9.5	9.7	9.8	10.0	10.3	10.6	10.9	75 0
80 0	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.2	9.4	9.6	9.7	9.9	10.2	10.5	10.8	80 0
85 0	7.4	7.6	7.8	8.0	8.2	8.4	8.6	8.8	9.0	9.1	9.3	9.5	9.6	9.8	10.1	10.4	10.7	85 0
90 0	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.2	9.4	9.6	9.7	10.1	10.4	10.7	90 0

第 2 改 正　　P (惑星ノミ)

測高度ニ加	測高度 Obs. Alt.	惑星地平視差 H. P. 0′.1	0′.2	0′.3	0′.4	0′.5	0′.6	測高度 Obs. Alt.	測高度ニ加
	°	′	′	′	′	′	′	°	
	10	0.1	0.2	0.3	0.4	0.5	0.6	10	
	30	0.1	0.2	0.3	0.3	0.4	0.5	30	
	50	0.1	0.1	0.2	0.2	0.3	0.4	50	
	70	0.0	0.1	0.1	0.1	0.2	0.2	70	
	90	0.0	0.0	0.0	0.0	0.0	0.0	90	

氣温ト水温トガ異ル場合ハ、本表ニ依リテ高度ヲ改正シタル後、第196頁下方ニ記セル眼高差ノ變化ニ對スル改正ヲ施スベシ。

第 4 表　《 太陰ノ測高度改正表

第 1 改 正　眼高36米(118呎)ニ對スルモノ

測高度 Obs. Alt.	親半徑 14′ 40″	14′ 50″	15′ 0″	15′ 10″	15′ 20″	15′ 30″	15′ 40″	15′ 50″	16′ 0″	16′ 10″	16′ 20″	16′ 30″	16′ 40″	16′ 50″	測高度 Obs. Alt.
	S. D. (航海年表ヨリ取ル)														
	測高度ニ加 (+)														
°	′	′	′	′	′	′	′	′	′	′	′	′	′	′	°
6	48.8	49.6	50.4	51.2	51.9	52.7	53.5	54.3	55.0	55.8	56.6	57.4	58.1	58.9	6
7	49.8	50.6	51.4	52.2	52.9	53.7	54.5	55.3	56.0	56.8	57.6	58.4	59.1	59.9	7
8	50.6	51.4	52.1	52.9	53.7	54.5	55.2	56.0	56.8	57.6	58.3	59.1	59.9	60.6	8
9	51.2	51.9	52.7	53.5	54.2	55.0	55.8	56.6	57.3	58.1	58.9	59.6	60.4	61.2	9
10	51.6	52.4	53.1	53.9	54.7	55.4	56.2	57.0	57.7	58.5	59.3	60.0	60.8	61.6	10
11	51.9	52.7	53.4	54.2	55.0	55.7	56.5	57.3	58.0	58.8	59.6	60.3	61.1	61.9	11
12	52.1	52.9	53.6	54.4	55.2	55.9	56.7	57.5	58.2	59.0	59.8	60.5	61.3	62.1	12
13	52.3	53.0	53.8	54.6	55.3	56.1	56.8	57.6	58.4	59.1	59.9	60.7	61.4	62.2	13
14	52.3	53.1	53.9	54.6	55.4	56.2	56.9	57.7	58.4	59.2	60.0	60.7	61.5	62.2	14
15	52.4	53.1	53.9	54.7	55.4	56.2	56.9	57.7	58.4	59.2	60.0	60.7	61.5	62.2	15
16	52.4	53.1	53.9	54.6	55.4	56.1	56.9	57.6	58.4	59.2	59.9	60.7	61.4	62.2	16
17	52.3	53.1	53.8	54.6	55.3	56.1	56.8	57.6	58.3	59.1	59.8	60.6	61.3	62.1	17
18	52.2	53.0	53.7	54.5	55.2	56.0	56.7	57.5	58.2	59.0	59.7	60.4	61.2	61.9	18
19	52.1	52.8	53.6	54.3	55.1	55.8	56.6	57.3	58.0	58.8	59.5	60.3	61.0	61.8	19
20	51.9	52.7	53.4	54.1	54.9	55.6	56.4	57.1	57.9	58.6	59.3	60.1	60.8	61.6	20
21	51.7	52.5	53.2	53.9	54.7	55.4	56.2	56.9	57.6	58.4	59.1	59.9	60.6	61.3	21
22	51.5	52.2	53.0	53.7	54.5	55.2	55.9	56.7	57.4	58.1	58.9	59.6	60.3	61.1	22
23	51.3	52.0	52.7	53.5	54.2	54.9	55.7	56.4	57.1	57.8	58.6	59.3	60.0	60.8	23
24	51.0	51.7	52.5	53.2	53.9	54.6	55.4	56.1	56.8	57.5	58.3	59.0	59.7	60.4	24
25	50.7	51.4	52.2	52.9	53.6	54.3	55.0	55.8	56.5	57.2	57.9	58.7	59.4	60.1	25
26	50.4	51.1	51.8	52.6	53.3	54.0	54.7	55.4	56.1	56.9	57.6	58.3	59.0	59.7	26
27	50.1	50.8	51.5	52.2	52.9	53.6	54.4	55.1	55.8	56.5	57.2	57.9	58.6	59.3	27
28	49.7	50.4	51.1	51.8	52.6	53.3	54.0	54.7	55.4	56.1	56.8	57.5	58.2	58.9	28
29	49.4	50.1	50.8	51.5	52.2	52.9	53.6	54.3	55.0	55.7	56.4	57.1	57.8	58.5	29
30	49.0	49.7	50.4	51.1	51.8	52.4	53.1	53.8	54.5	55.2	55.9	56.6	57.3	58.0	30
31	48.6	49.2	49.9	50.6	51.3	52.0	52.7	53.4	54.1	54.8	55.5	56.2	56.9	57.6	31
32	48.1	48.8	49.5	50.2	50.9	51.6	52.2	52.9	53.6	54.3	55.0	55.7	56.4	57.1	32
33	47.7	48.4	49.0	49.7	50.4	51.1	51.8	52.5	53.1	53.8	54.5	55.2	55.9	56.5	33
34	47.2	47.9	48.6	49.3	49.9	50.6	51.3	52.0	52.6	53.3	54.0	54.7	55.3	56.0	34
35	46.8	47.4	48.1	48.8	49.4	50.1	50.8	51.4	52.1	52.8	53.4	54.1	54.8	55.4	35
36	46.3	46.9	47.6	48.2	48.9	49.6	50.2	50.9	51.6	52.2	52.9	53.5	54.2	54.9	36
37	45.7	46.4	47.1	47.7	48.4	49.0	49.7	50.3	51.0	51.7	52.3	53.0	53.6	54.3	37
38	45.2	45.9	46.5	47.2	47.8	48.5	49.1	49.8	50.4	51.1	51.7	52.4	53.0	53.7	38
39	44.7	45.3	46.0	46.6	47.3	47.9	48.5	49.2	49.8	50.5	51.1	51.8	52.4	53.1	39
40	44.1	44.8	45.4	46.0	46.7	47.3	48.0	48.6	49.2	49.9	50.5	51.1	51.8	52.4	40
41	43.6	44.2	44.8	45.5	46.1	46.7	47.3	48.0	48.6	49.2	49.9	50.5	51.1	51.8	41
42	43.0	43.6	44.2	44.9	45.5	46.1	46.7	47.3	48.0	48.6	49.2	49.8	50.5	51.1	42
43	42.4	43.0	43.6	44.2	44.9	45.5	46.1	46.7	47.3	47.9	48.5	49.2	49.8	50.4	43
44	41.8	42.4	43.0	43.6	44.2	44.8	45.4	46.0	46.7	47.3	47.9	48.5	49.1	49.7	44
45	41.2	41.8	42.4	43.0	43.6	44.2	44.8	45.4	46.0	46.6	47.2	47.8	48.4	49.0	45
46	40.5	41.1	41.7	42.3	42.9	43.5	44.1	44.7	45.3	45.9	46.5	47.1	47.6	48.2	46
47	39.9	40.5	41.1	41.6	42.2	42.8	43.4	44.0	44.6	45.2	45.7	46.3	46.9	47.5	47
48	39.2	39.8	40.4	41.0	41.5	42.1	42.7	43.3	43.8	44.4	45.0	45.6	46.2	46.7	48
49	38.6	39.1	39.7	40.3	40.8	41.4	42.0	42.5	43.1	43.7	44.3	44.8	45.4	46.0	49
50	37.9	38.4	39.0	39.6	40.1	40.7	41.2	41.8	42.4	42.9	43.5	44.0	44.6	45.2	50

第 2 改 正　(眼高ニ對スル改正)

眼高	0m 0′	3m 10′	4m 13′	5m 16′	6m 20′	7m 23′	8m 26′	9m 30′	10m 33′	11m 36′	12m 39′	13m 43′	14m 46′	15m 49′	16m 52′	17m 56′
測高度ニ加	′ 10.7	′ 7.6	′ 7.1	′ 6.7	′ 6.3	′ 6.0	′ 5.6	′ 5.3	′ 5.0	′ 4.8	′ 4.5	′ 4.3	′ 4.0	′ 3.8	′ 3.6	′ 3.3

第 3 改 正　(上邊ヲ測リタル場合ノミ)

上邊ヲ測リタル場合ハ、下邊ノ場合ニ準ジ第1，第2改正ヲ施シタル後

航海年表ヨリ取リタル S.D. ノ値ノ2倍ヲ減ズベシ。

氣温ト水温トガ異ル場合ハ、本表ニ依リテ高度ヲ改正シタル後、第196頁下方ニ記セル眼高差ノ變化ニ對スル改正ヲ施スベシ。

第 4 表　《 太陰ノ測高度改正表

第 1 改 正　眼高36米(118呎)ニ對スルモノ

測高度 Obs. Alt.	親半徑 14′ 40″	14′ 50″	15′ 0″	15′ 10″	15′ 20″	15′ 30″	15′ 40″	15′ 50″	16′ 0″	16′ 10″	16′ 20″	16′ 30″	16′ 40″	16′ 50″	測高度 Obs. Alt.
	S. D. (航海年表ヨリ取ル)														
	測高度ニ加 (+)														
°	′	′	′	′	′	′	′	′	′	′	′	′	′	′	°
50	37.9	38.4	39.0	39.6	40.1	40.7	41.2	41.8	42.4	42.9	43.5	44.0	44.6	45.2	50
51	37.2	37.7	38.3	38.8	39.4	39.9	40.5	41.1	41.6	42.2	42.7	43.3	43.8	44.4	51
52	36.5	37.0	37.6	38.1	38.7	39.2	39.7	40.3	40.8	41.4	41.9	42.5	43.0	43.6	52
53	35.8	36.3	36.8	37.4	37.9	38.4	39.0	39.5	40.1	40.6	41.1	41.7	42.2	42.7	53
54	35.0	35.6	36.1	36.6	37.1	37.7	38.2	38.7	39.3	39.8	40.3	40.8	41.4	41.9	54
55	34.3	34.8	35.3	35.9	36.4	36.9	37.4	37.9	38.5	39.0	39.5	40.0	40.5	41.0	55
56	33.5	34.1	34.6	35.1	35.6	36.1	36.6	37.1	37.6	38.1	38.7	39.2	39.7	40.2	56
57	32.8	33.3	33.8	34.3	34.8	35.3	35.8	36.3	36.8	37.3	37.8	38.3	38.8	39.3	57
58	32.0	32.5	33.0	33.5	34.0	34.5	35.0	35.5	36.0	36.5	37.0	37.4	37.9	38.4	58
59	31.3	31.7	32.2	32.7	33.2	33.7	34.2	34.6	35.1	35.6	36.1	36.6	37.1	37.5	59
60	30.5	30.9	31.4	31.9	32.4	32.8	33.3	33.8	34.3	34.7	35.2	35.7	36.2	36.6	60
61	29.7	30.1	30.6	31.1	31.5	32.0	32.5	32.9	33.4	33.9	34.3	34.8	35.3	35.7	61
62	28.9	29.3	29.8	30.2	30.7	31.2	31.6	32.1	32.5	33.0	33.4	33.9	34.3	34.8	62
63	28.1	28.5	29.0	29.4	29.8	30.3	30.7	31.2	31.6	32.1	32.5	33.0	33.4	33.9	63
64	27.2	27.7	28.1	28.6	29.0	29.4	29.9	30.3	30.7	31.2	31.6	32.1	32.5	32.9	64
65	26.4	26.9	27.3	27.7	28.1	28.6	29.0	29.4	29.8	30.3	30.7	31.1	31.5	32.0	65
66	25.6	26.0	26.4	26.8	27.3	27.7	28.1	28.5	28.9	29.3	29.8	30.2	30.6	31.0	66
67	24.8	25.2	25.6	26.0	26.4	26.8	27.2	27.6	28.0	28.4	28.8	29.2	29.6	30.1	67
68	23.9	24.3	24.7	25.1	25.5	25.9	26.3	26.7	27.1	27.5	27.9	28.3	28.7	29.1	68
69	23.1	23.4	23.8	24.2	24.6	25.0	25.4	25.8	26.2	26.5	26.9	27.3	27.7	28.1	69
70	22.2	22.6	23.0	23.3	23.7	24.1	24.5	24.8	25.2	25.6	26.0	26.4	26.7	27.1	70
71	21.3	21.7	22.1	22.4	22.8	23.2	23.5	23.9	24.3	24.6	25.0	25.4	25.7	26.1	71
72	20.5	20.8	21.2	21.5	21.9	22.3	22.6	23.0	23.3	23.7	24.0	24.4	24.8	25.1	72
73	19.6	19.9	20.3	20.6	21.0	21.3	21.7	22.0	22.4	22.7	23.1	23.4	23.8	24.1	73
74	18.7	19.0	19.4	19.7	20.1	20.4	20.7	21.1	21.4	21.7	22.1	22.4	22.8	23.1	74
75	17.8	18.1	18.5	18.8	19.1	19.5	19.8	20.1	20.4	20.8	21.1	21.4	21.7	22.1	75
76	16.9	17.2	17.6	17.9	18.2	18.5	18.8	19.1	19.5	19.8	20.1	20.4	20.7	21.0	76
77	16.0	16.3	16.7	17.0	17.3	17.6	17.9	18.2	18.5	18.8	19.1	19.4	19.7	20.0	77
78	15.1	15.4	15.7	16.0	16.3	16.6	16.9	17.2	17.5	17.8	18.1	18.4	18.7	19.0	78
79	14.2	14.5	14.8	15.1	15.4	15.7	16.0	16.2	16.5	16.8	17.1	17.4	17.7	17.9	79
80	13.3	13.6	13.9	14.2	14.4	14.7	15.0	15.3	15.5	15.8	16.1	16.4	16.6	16.9	80
81	12.4	12.7	13.0	13.2	13.5	13.7	14.0	14.3	14.5	14.8	15.1	15.3	15.6	15.9	81
82	11.5	11.8	12.0	12.3	12.5	12.8	13.0	13.3	13.5	13.8	14.1	14.3	14.6	14.8	82
83	10.6	10.8	11.1	11.3	11.6	11.8	12.1	12.3	12.6	12.8	13.0	13.3	13.5	13.8	83
84	9.7	9.9	10.2	10.4	10.6	10.9	11.1	11.3	11.6	11.8	12.0	12.2	12.5	12.7	84
85	8.8	9.0	9.2	9.4	9.7	9.9	10.1	10.3	10.5	10.8	11.0	11.2	11.4	11.7	85
86	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.8	10.0	10.2	10.4	10.6	86
87	6.9	7.1	7.3	7.5	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	87
88	6.0	6.2	6.4	6.6	6.8	7.0	7.2	7.3	7.5	7.7	7.9	8.1	8.3	8.5	88
89	5.1	5.3	5.5	5.6	5.8	6.0	6.2	6.4	6.5	6.7	6.9	7.1	7.2	7.4	89
90	4.2	4.3	4.5	4.7	4.8	5.0	5.2	5.4	5.5	5.7	5.9	6.0	6.2	6.4	90

第 2 改 正　(眼高ニ對スル改正)

眼高	18m 59′	19m 62′	20m 66′	21m 69′	22m 72′	23m 75′	24m 79′	25m 82′	26m 85′	27m 89′	28m 92′	29m 95′	30m 98′	32m 105′	34m 112′	36m 118′
測高度ニ加	′ 3.1	′ 2.9	′ 2.7	′ 2.5	′ 2.3	′ 2.1	′ 2.0	′ 1.8	′ 1.6	′ 1.4	′ 1.3	′ 1.1	′ 0.9	′ 0.6	′ 0.3	′ 0.0

第 3 改 正　(上邊ヲ測リタル場合ノミ)

上邊ヲ測リタル場合ハ、下邊ノ場合ニ準ジ第1，第2改正ヲ施シタル後

航海年表ヨリ取リタル S.D. ノ値ノ2倍ヲ減ズベシ。

氣温ト水温トガ異ル場合ハ、本表ニ依リテ高度ヲ改正シタル後、第196頁下方ニ記セル眼高差ノ變化ニ對スル改正ヲ施スベシ。

距離 Dist. (Metre)	眼高 3m 9.8′	4m 13.1′	5m 16.4′	6m 19.7′	7m 23.0′	8m 26.2′	9m 29.5′	10m 32.8′	11m 36.1′	12m 39.4′	13m 42.7′	14m 45.9′	15m 49.2′	16m 52.5′	17m 55.8′	比例部分 P.P. 0.2m	0.4m	0.6m	0.8m
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
600	17.3	23.1	28.8	34.5	40.3	46.0	51.7	57.4	63.2	68.9	74.6	80.4	86.1	91.8	97.6	1.1	2.3	3.4	4.6
620	16.8	22.3	27.9	33.4	39.0	44.5	50.1	55.6	61.1	66.7	72.2	77.8	83.3	88.9	94.4	1.1	2.2	3.3	4.4
640	16.3	21.6	27.0	32.4	37.8	43.1	48.5	53.9	59.2	64.6	70.0	75.4	80.7	86.1	91.5	1.1	2.1	3.2	4.3
660	15.8	21.0	26.2	31.4	36.6	41.8	47.0	52.2	57.5	62.7	67.9	73.1	78.3	83.5	88.7	1.0	2.1	3.1	4.2
680	15.3	20.4	25.4	30.5	35.5	40.6	45.7	50.7	55.8	60.8	65.9	70.9	76.0	81.1	86.1	1.0	2.0	3.0	4.0
700	14.9	19.8	24.7	29.6	34.5	39.5	44.4	49.3	54.2	59.1	64.0	68.9	73.8	78.7	83.7	1.0	2.0	2.9	3.9
720	14.5	19.3	24.0	28.8	33.6	38.4	43.1	47.9	52.7	57.5	62.3	67.0	71.8	76.6	81.3	1.0	1.9	2.9	3.8
740	14.1	18.8	23.4	28.0	32.7	37.3	42.0	46.6	51.3	55.9	60.6	65.2	69.9	74.5	79.2	0.9	1.9	2.8	3.7
760	13.7	18.3	22.8	27.3	31.8	36.4	40.9	45.4	49.9	54.5	59.0	63.5	68.0	72.6	77.1	0.9	1.8	2.7	3.6
780	13.4	17.8	22.2	26.6	31.0	35.4	39.9	44.3	48.7	53.1	57.5	61.9	66.3	70.7	75.1	0.9	1.8	2.6	3.5
800	13.1	17.4	21.7	26.0	30.3	34.6	38.9	43.2	47.5	51.8	56.1	60.4	64.6	68.9	73.2	0.9	1.7	2.6	3.4
820	12.8	17.0	21.2	25.3	29.5	33.7	37.9	42.1	46.3	50.5	54.7	58.9	63.1	67.3	71.5	0.8	1.7	2.5	3.4
840	12.5	16.6	20.7	24.8	28.8	32.9	37.0	41.1	45.2	49.3	53.4	57.5	61.6	65.7	69.8	0.8	1.6	2.5	3.3
860	12.2	16.2	20.2	24.2	28.2	32.2	36.2	40.2	44.2	48.2	52.2	56.2	60.2	64.2	68.2	0.8	1.6	2.4	3.2
880	11.9	15.8	19.7	23.6	27.6	31.5	35.4	39.3	43.2	47.1	51.0	54.9	58.8	62.7	66.6	0.8	1.6	2.3	3.1
900	11.7	15.5	19.3	23.1	26.9	30.8	34.6	38.4	42.2	46.0	49.9	53.7	57.5	61.3	65.1	0.8	1.5	2.3	3.0
920	11.4	15.2	18.9	22.6	26.4	30.1	33.8	37.6	41.3	45.1	48.8	52.5	56.3	60.0	63.7	0.7	1.5	2.2	3.0
940	11.2	14.8	18.5	22.2	25.8	29.5	33.1	36.8	40.4	44.1	47.8	51.4	55.1	58.7	62.4	0.7	1.5	2.2	2.9
960	11.0	14.5	18.1	21.7	25.3	28.9	32.5	36.0	39.6	43.2	46.8	50.4	53.9	57.5	61.1	0.7	1.4	2.1	2.9
980	10.8	14.3	17.8	21.3	24.8	28.3	31.8	35.3	38.8	42.3	45.8	49.3	52.8	56.4	59.9	0.7	1.4	2.1	2.8
1000	10.5	14.0	17.4	20.9	24.3	27.7	31.2	34.6	38.0	41.5	44.9	48.4	51.8	55.2	58.7	0.7	1.4	2.1	2.8
1020	10.3	13.7	17.1	20.5	23.8	27.2	30.6	33.9	37.3	40.7	44.1	47.4	50.8	54.2	57.5	0.7	1.3	2.0	2.7
1040	10.2	13.5	16.8	20.1	23.4	26.7	30.0	33.3	36.6	39.9	43.2	46.5	49.8	53.1	56.4	0.7	1.3	2.0	2.6
1060	10.0	13.2	16.5	19.7	22.9	26.2	29.4	32.7	35.9	39.2	42.4	45.7	48.9	52.1	55.4	0.7	1.3	1.9	2.6
1080	9.8	13.0	16.2	19.3	22.5	25.7	28.9	32.1	35.3	38.4	41.6	44.8	48.0	51.2	54.4	0.6	1.3	1.9	2.6
1100	9.6	12.8	15.9	19.0	22.1	25.3	28.4	31.5	34.6	37.8	40.9	44.0	47.1	50.3	53.4	0.6	1.2	1.9	2.5
1120	9.5	12.5	15.6	18.7	21.7	24.8	27.9	31.0	34.0	37.1	40.2	43.2	46.3	49.4	52.4	0.6	1.2	1.8	2.5
1140	9.3	12.3	15.3	18.4	21.4	24.4	27.4	30.4	33.4	36.5	39.5	42.5	45.5	48.5	51.5	0.6	1.2	1.8	2.4
1160	9.2	12.1	15.1	18.1	21.0	24.0	26.9	29.9	32.9	35.8	38.8	41.8	44.7	47.7	50.7	0.6	1.2	1.8	2.4
1180	9.0	11.9	14.8	17.8	20.7	23.6	26.5	29.4	32.3	35.2	38.1	41.1	44.0	46.9	49.8	0.6	1.2	1.7	2.3
1200	8.9	11.7	14.6	17.5	20.3	23.2	26.1	28.9	31.8	34.7	37.5	40.4	43.3	46.1	49.0	0.6	1.2	1.7	2.3
1220	8.7	11.6	14.4	17.2	20.0	22.8	25.6	28.5	31.3	34.1	36.9	39.7	42.6	45.4	48.2	0.6	1.1	1.7	2.3
1240	8.6	11.4	14.1	16.9	19.7	22.5	25.2	28.0	30.8	33.6	36.3	39.1	41.9	44.6	47.4	0.6	1.1	1.7	2.2
1260	8.5	11.2	13.9	16.7	19.4	22.1	24.8	27.6	30.3	33.0	35.8	38.5	41.2	43.9	46.7	0.5	1.1	1.6	2.2
1280	8.4	11.0	13.7	16.4	19.1	21.8	24.5	27.2	29.8	32.5	35.2	37.9	40.6	43.3	46.0	0.5	1.1	1.6	2.1
1300	8.2	10.9	13.5	16.2	18.8	21.5	24.1	26.7	29.4	32.0	34.7	37.3	40.0	42.6	45.3	0.5	1.1	1.6	2.1
1320	8.1	10.7	13.3	15.9	18.5	21.1	23.7	26.4	29.0	31.6	34.2	36.8	39.4	42.0	44.6	0.5	1.0	1.6	2.1
1340	8.0	10.6	13.1	15.7	18.3	20.8	23.4	26.0	28.5	31.1	33.7	36.2	38.8	41.4	43.9	0.5	1.0	1.5	2.1
1360	7.9	10.4	13.0	15.5	18.0	20.5	23.1	25.6	28.1	30.6	33.2	35.7	38.2	40.8	43.3	0.5	1.0	1.5	2.0
1380	7.8	10.3	12.8	15.3	17.8	20.2	22.7	25.2	27.7	30.2	32.7	35.2	37.7	40.2	42.7	0.5	1.0	1.5	2.0
1400	7.7	10.1	12.6	15.1	17.5	20.0	22.4	24.9	27.3	29.8	32.2	34.7	37.2	39.6	42.1	0.5	1.0	1.5	2.0
1420	7.6	10.0	12.4	14.9	17.3	19.7	22.1	24.5	27.0	29.4	31.8	34.2	36.6	39.1	41.5	0.5	1.0	1.4	1.9
1440	7.5	9.9	12.3	14.7	17.0	19.4	21.8	24.2	26.6	29.0	31.4	33.8	36.1	38.5	40.9	0.5	1.0	1.4	1.9
1460	7.4	9.8	12.1	14.5	16.8	19.2	21.5	23.9	26.2	28.6	30.9	33.3	35.7	38.0	40.4	0.5	0.9	1.4	1.9
1480	7.3	9.6	12.0	14.3	16.6	18.9	21.2	23.6	25.9	28.2	30.5	32.9	35.2	37.5	39.8	0.5	0.9	1.4	1.8
1500	7.2	9.5	11.8	14.1	16.4	18.7	21.0	23.3	25.6	27.8	30.1	32.4	34.7	37.0	39.3	0.5	0.9	1.4	1.8
1600	6.8	9.0	11.1	13.3	15.4	17.6	19.7	21.9	24.0	26.2	28.3	30.5	32.6	34.7	36.9	0.4	0.9	1.3	1.7
1700	6.5	8.5	10.5	12.5	14.5	16.6	18.6	20.6	22.6	24.7	26.7	28.7	30.7	32.7	34.8	0.4	0.8	1.2	1.6
1800	6.1	8.1	10.0	11.9	13.8	15.7	17.6	19.5	21.4	23.3	25.2	27.2	29.1	31.0	32.9	0.4	0.8	1.1	1.5
1900	5.9	7.7	9.5	11.3	13.1	14.9	16.7	18.5	20.3	22.2	24.0	25.8	27.6	29.4	31.2	0.4	0.7	1.1	1.4
2000	5.6	7.3	9.1	10.8	12.5	14.2	15.9	17.6	19.4	21.1	22.8	24.5	26.2	28.0	29.7	0.3	0.7	1.0	1.4
2100	5.4	7.0	8.7	10.3	11.9	13.6	15.2	16.9	18.5	20.1	21.8	23.4	25.0	26.7	28.3	0.3	0.7	1.0	1.3
2200	5.2	6.8	8.3	9.9	11.4	13.0	14.6	16.1	17.7	19.3	20.8	22.4	23.9	25.5	27.1	0.3	0.6	0.9	1.2
2300	5.0	6.5	8.0	9.5	11.0	12.5	14.0	15.5	17.0	18.5	20.0	21.5	22.9	24.4	25.9	0.3	0.6	0.9	1.2
2400	4.8	6.3	7.7	9.1	10.6	12.0	13.4	14.9	16.3	17.7	19.2	20.6	22.0	23.5	24.9	0.3	0.6	0.8	1.1
2500	4.7	6.1	7.4	8.8	10.2	11.6	13.0	14.3	15.7	17.1	18.5	19.8	21.2	22.6	24.0	0.3	0.6	0.8	1.1
2600	4.6	5.9	7.2	8.5	9.9	11.2	12.5	13.8	15.1	16.5	17.8	19.1	20.4	21.8	23.1	0.3	0.5	0.8	1.0
2700	4.4	5.7	7.0	8.3	9.5	10.8	12.1	13.4	14.6	15.9	17.2	18.4	19.7	21.0	22.3	0.3	0.5	0.8	1.0
2800	4.3	5.6	6.8	8.0	9.2	10.5	11.7	12.9	14.1	15.4	16.6	17.8	19.1	20.3	21.5	0.2	0.5	0.7	1.0
2900	4.2	5.4	6.6	7.8	9.0	10.1	11.3	12.5	13.7	14.9	16.1	17.3	18.4	19.6	20.8	0.2	0.5	0.7	1.0
3000	4.1	5.3	6.4	7.6	8.7	9.9	11.0	12.1	13.3	14.4	15.6	16.7	17.9	19.0	20.2	0.2	0.5	0.7	0.9
3500	3.8	4.7	5.7	6.7	7.7	8.7	9.6	10.6	11.6	12.6	13.6	14.6	15.5	16.5	17.5	0.2	0.4	0.6	0.8
4000	3.5	4.4	5.2	6.1	6.9	7.8	8.7	9.5	10.4	11.2	12.1	13.0	13.8	14.7	15.5	0.2	0.4	0.5	0.7
4500	3.3	4.1	4.9	5.6	6.4	7.1	7.9	8.7	9.4	10.2	11.0	11.7	12.5	13.3	14.0	0.2	0.3	0.5	0.6
5000	3.2	3.9	4.6	5.3	6.0	6.6	7.3	8.0	8.7	9.4	10.1	10.8	11.5	12.1	12.8	0.1	0.3	0.4	0.6

眼高 米(m)、呎(′)

距離 Dist. (Metre)	眼高 18m 59.1′	19m 62.3′	20m 65.6′	21m 68.9′	22m 72.2′	23m 75.5′	24m 78.7′	25m 82.0′	26m 85.3′	27m 88.6′	28m 91.9′	30m 98.4′	32m 105.0′	34m 111.5′	36m 118.1′	比例部分 P.P. 0.2m	0.4m	0.6m	0.8m
	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
600	103.3	109.0	114.7	120.5	126.2	131.9	137.7	143.4	149.1	154.8	160.6	172.0	183.5	195.0	206.4	1.1	2.3	3.4	4.6
620	100.0	105.5	111.0	116.6	122.1	127.7	133.2	138.8	144.3	149.9	155.4	166.5	177.6	188.7	199.8	1.1	2.2	3.3	4.4
640	96.8	102.2	107.6	113.0	118.3	123.7	129.1	134.4	139.8	145.2	150.6	161.3	172.1	182.8	193.5	1.1	2.1	3.2	4.3
660	93.9	99.1	104.3	109.5	114.8	120.0	125.2	130.4	135.6	140.8	146.0	156.4	166.8	177.3	187.7	1.0	2.1	3.1	4.2
680	91.2	96.2	101.3	106.3	111.4	116.4	121.5	126.6	131.6	136.7	141.7	151.8	161.9	172.1	182.2	1.0	2.0	3.0	4.0
700	88.6	93.5	98.4	103.3	108.2	113.1	118.0	123.0	127.9	132.8	137.7	147.5	157.3	167.2	177.0	1.0	2.0	2.9	3.9
720	86.1	90.9	95.7	100.4	105.2	110.0	114.8	119.5	124.3	129.1	133.9	143.4	153.0	162.5	172.1	1.0	1.9	2.9	3.8
740	83.8	88.4	93.1	97.7	102.4	107.0	111.7	116.3	121.0	125.6	130.3	139.6	148.8	158.1	167.4	0.9	1.9	2.8	3.7
760	81.6	86.1	90.7	95.2	99.7	104.2	108.7	113.3	117.8	122.3	126.8	135.9	144.9	154.0	163.0	0.9	1.8	2.7	3.6
780	79.5	83.9	88.3	92.7	97.2	101.6	106.0	110.4	114.8	119.2	123.6	132.4	141.2	150.0	158.9	0.9	1.8	2.6	3.5
800	77.5	81.8	86.1	90.4	94.7	99.0	103.3	107.6	111.9	116.2	120.5	129.1	137.7	146.3	154.9	0.9	1.7	2.6	3.4
820	75.7	79.9	84.0	88.2	92.4	96.6	100.8	105.0	109.2	113.4	117.6	126.0	134.4	142.7	151.1	0.8	1.7	2.5	3.4
840	73.9	78.0	82.1	86.1	90.2	94.3	98.4	102.5	106.6	110.7	114.8	123.0	131.2	139.4	147.5	0.8	1.6	2.5	3.3
860	72.2	76.2	80.2	84.2	88.1	92.1	96.1	100.1	104.1	108.1	112.1	120.1	128.1	136.1	144.1	0.8	1.6	2.4	3.2
880	70.5	74.4	78.3	82.2	86.2	90.1	94.0	97.9	101.8	105.7	109.6	117.4	125.2	133.0	140.9	0.8	1.6	2.3	3.1
900	69.0	72.8	76.6	80.4	84.2	88.1	91.9	95.7	99.5	103.3	107.2	114.8	122.4	130.1	137.7	0.8	1.5	2.3	3.0
920	67.5	71.2	75.0	78.7	82.4	86.2	89.9	93.6	97.4	101.1	104.8	112.3	119.8	127.3	134.7	0.7	1.5	2.2	3.0
940	66.1	69.7	73.4	77.0	80.7	84.3	88.0	91.7	95.3	99.0	102.6	109.9	117.3	124.6	131.9	0.7	1.5	2.2	2.9
960	64.7	68.3	71.8	75.4	79.0	82.6	86.2	89.8	93.3	96.9	100.5	107.7	114.8	122.0	129.2	0.7	1.4	2.1	2.9
980	63.4	66.9	70.4	73.9	77.4	80.9	84.4	87.9	91.4	94.9	98.5	105.5	112.5	119.5	126.5	0.7	1.4	2.1	2.8
1000	62.1	65.6	69.0	72.4	75.9	79.3	82.7	86.2	89.6	93.1	96.5	103.4	110.2	117.1	124.0	0.7	1.4	2.1	2.8
1020	60.9	64.3	67.6	71.0	74.4	77.8	81.1	84.5	87.9	91.2	94.6	101.4	108.1	114.8	121.6	0.7	1.3	2.0	2.7
1040	59.7	63.1	66.4	69.7	73.0	76.3	79.6	82.9	86.2	89.5	92.8	99.4	106.0	112.6	119.2	0.7	1.3	2.0	2.6
1060	58.6	61.9	65.1	68.4	71.6	74.8	78.1	81.3	84.6	87.8	91.1	97.5	104.0	110.5	117.0	0.7	1.3	1.9	2.6
1080	57.6	60.7	63.9	67.1	70.3	73.5	76.7	79.8	83.0	86.2	89.4	95.7	102.1	108.5	114.9	0.6	1.3	1.9	2.6
1100	56.5	59.6	62.8	65.9	69.0	72.1	75.3	78.4	81.5	84.6	87.8	94.0	100.3	106.5	112.8	0.6	1.2	1.9	2.5
1120	55.5	58.6	61.7	64.7	67.8	70.9	73.9	77.0	80.1	83.1	86.2	92.3	98.5	104.6	110.8	0.6	1.2	1.8	2.5
1140	54.5	57.6	60.6	63.6	66.6	69.6	72.6	75.7	78.7	81.7	84.7	90.7	96.8	102.8	108.8	0.6	1.2	1.8	2.4
1160	53.6	56.6	59.5	62.5	65.5	68.4	71.4	74.4	77.3	80.3	83.3	89.2	95.1	101.0	107.0	0.6	1.2	1.8	2.4
1180	52.7	55.6	58.5	61.5	64.4	67.3	70.2	73.1	76.0	78.9	81.9	87.7	93.5	99.3	105.2	0.6	1.2	1.7	2.3
1200	51.8	54.7	57.6	60.4	63.3	66.2	69.0	71.9	74.8	77.6	80.5	86.2	92.0	97.7	103.4	0.6	1.2	1.7	2.3
1220	51.0	53.8	56.6	59.5	62.3	65.1	67.9	70.7	73.6	76.4	79.2	84.8	90.5	96.1	101.7	0.6	1.1	1.7	2.3
1240	50.2	53.0	55.7	58.5	61.3	64.1	66.8	69.6	72.4	75.1	77.9	83.5	89.0	94.6	100.1	0.6	1.1	1.7	2.2
1260	49.4	52.1	54.9	57.6	60.3	63.0	65.8	68.5	71.2	74.0	76.7	82.1	87.6	93.1	98.5	0.5	1.1	1.6	2.2
1280	48.6	51.3	54.0	56.7	59.4	62.1	64.8	67.4	70.1	72.8	75.5	80.9	86.2	91.6	97.0	0.5	1.1	1.6	2.1
1300	47.9	50.5	53.2	55.8	58.5	61.1	63.8	66.4	69.1	71.7	74.4	79.6	84.9	90.2	95.5	0.5	1.1	1.6	2.1
1320	47.2	49.8	52.4	55.0	57.6	60.2	62.8	65.4	68.0	70.6	73.2	78.4	83.6	88.9	94.1	0.5	1.0	1.6	2.1
1340	46.5	49.1	51.6	54.2	56.8	59.3	61.9	64.5	67.0	69.6	72.1	77.3	82.4	87.5	92.7	0.5	1.0	1.5	2.1
1360	45.8	48.3	50.9	53.4	55.9	58.5	61.0	63.5	66.0	68.6	71.1	76.2	81.2	86.3	91.3	0.5	1.0	1.5	2.0
1380	45.2	47.7	50.1	52.6	55.1	57.6	60.1	62.6	65.1	67.6	70.1	75.1	80.0	85.0	90.0	0.5	1.0	1.5	2.0
1400	44.5	47.0	49.4	51.9	54.3	56.8	59.3	61.7	64.2	66.6	69.1	74.0	78.9	83.8	88.7	0.5	1.0	1.5	2.0
1420	43.9	46.3	48.8	51.2	53.6	56.0	58.4	60.9	63.3	65.7	68.1	73.0	77.8	82.6	87.5	0.5	1.0	1.4	1.9
1440	43.3	45.7	48.1	50.5	52.9	55.2	57.6	60.0	62.4	64.8	67.2	72.0	76.7	81.5	86.3	0.5	1.0	1.4	1.9
1460	42.7	45.1	47.4	49.8	52.1	54.5	56.9	59.2	61.6	63.9	66.3	71.0	75.7	80.4	85.1	0.5	0.9	1.4	1.9
1480	42.2	44.5	46.8	49.1	51.4	53.8	56.1	58.4	60.7	63.1	65.4	70.0	74.7	79.3	84.0	0.5	0.9	1.4	1.8
1500	41.6	43.9	46.2	48.5	50.8	53.1	55.4	57.6	59.9	62.2	64.5	69.1	73.7	78.3	82.9	0.5	0.9	1.4	1.8
1600	39.0	41.2	43.3	45.5	47.6	49.8	51.9	54.1	56.2	58.4	60.5	64.8	69.1	73.4	77.7	0.4	0.9	1.3	1.7
1700	36.8	38.8	40.8	42.9	44.9	46.9	48.9	51.0	53.0	55.0	57.0	61.1	65.1	69.2	73.2	0.4	0.8	1.2	1.6
1800	34.8	36.7	38.6	40.5	42.4	44.3	46.3	48.2	50.1	52.0	53.9	57.7	61.5	65.4	69.2	0.4	0.8	1.1	1.5
1900	33.0	34.8	36.6	38.4	40.2	42.1	43.9	45.7	47.5	49.3	51.1	54.7	58.3	62.0	65.6	0.4	0.7	1.1	1.4
2000	31.4	33.1	34.8	36.6	38.3	40.0	41.7	43.4	45.2	46.9	48.6	52.0	55.5	58.9	62.3	0.3	0.7	1.0	1.4
2100	30.0	31.6	33.2	34.9	36.5	38.1	39.8	41.4	43.0	44.7	46.3	49.6	52.9	56.1	59.4	0.3	0.7	1.0	1.3
2200	28.6	30.2	31.8	33.3	34.9	36.4	38.0	39.6	41.1	42.7	44.3	47.4	50.5	53.6	56.8	0.3	0.6	0.9	1.2
2300	27.4	28.9	30.4	31.9	33.4	34.9	36.4	37.9	39.4	40.9	42.4	45.4	48.4	51.4	54.3	0.3	0.6	0.9	1.2
2400	26.3	27.8	29.2	30.6	32.1	33.5	34.9	36.4	37.8	39.2	40.7	43.5	46.4	49.3	52.1	0.3	0.6	0.8	1.1
2500	25.3	26.7	28.1	29.5	30.8	32.2	33.6	35.0	36.3	37.7	39.1	41.8	44.6	47.3	50.1	0.3	0.6	0.8	1.1
2600	24.4	25.7	27.0	28.4	29.7	31.0	32.3	33.7	35.0	36.3	37.6	40.3	42.9	45.6	48.2	0.3	0.5	0.8	1.0
2700	23.5	24.8	26.1	27.4	28.6	29.9	31.2	32.5	33.7	35.0	36.3	38.8	41.4	43.9	46.5	0.3	0.5	0.8	1.0
2800	22.7	24.0	25.2	26.4	27.7	28.9	30.1	31.3	32.6	33.8	35.0	37.5	39.9	42.4	44.8	0.2	0.5	0.7	1.0
2900	22.0	23.2	24.4	25.6	26.7	27.9	29.1	30.3	31.5	32.7	33.9	36.2	38.6	41.0	43.3	0.2	0.5	0.7	1.0
3000	21.3	22.5	23.6	24.8	25.9	27.0	28.2	29.3	30.5	31.6	32.8	35.1	37.4	39.7	41.9	0.2	0.5	0.7	0.9
3500	18.5	19.5	20.4	21.4	22.4	23.4	24.4	25.4	26.3	27.3	28.3	30.3	32.2	34.2	36.2	0.2	0.4	0.6	0.8
4000	16.4	17.2	18.1	19.0	19.8	20.7	21.5	22.4	23.3	24.1	25.0	26.7	28.4	30.1	31.9	0.2	0.4	0.5	0.7
4500	14.8	15.5	16.3	17.1	17.8	18.6	19.4	20.1	20.9	21.7	22.4	24.0	25.5	27.0	28.5	0.2	0.3	0.5	0.6
5000	13.5	14.2	14.9	15.6	16.3	17.0	17.7	18.3	19.0	19.7	20.4	21.8	23.2	24.5	25.9	0.1	0.3	0.4	0.6

眼高 米(m)、呎(′)

第5表 II　水涯眼高差表　距離（浬）

距離 Dist.	眼高 米(m)、呎(′)																距離 Dist.
	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	
	′ 9.8	′ 13.1	′ 16.4	′ 19.7	′ 23.0	′ 26.2	′ 29.5	′ 32.8	′ 36.1	′ 39.4	′ 42.7	′ 45.9	′ 49.2	′ 52.5	′ 55.8	′ 59.1	
Mile	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	Mile
0.1	55.7	74.3	92.9	111.4	130.0	148.6	167.1	185.7	204.3	222.8	241.4	260.0	278.5	297.1	315.6	334.2	0.1
0.2	27.9	37.2	46.5	55.8	65.1	74.3	83.6	92.9	102.2	111.5	120.8	130.0	139.3	148.6	157.9	167.2	0.2
0.3	18.7	24.9	31.1	37.3	43.4	49.6	55.8	62.0	68.2	74.4	80.6	86.8	93.0	99.1	105.3	111.5	0.3
0.4	14.1	18.7	23.4	28.0	32.7	37.3	41.9	46.6	51.2	55.9	60.5	65.1	69.8	74.4	79.1	83.7	0.4
0.5	11.4	15.1	18.8	22.5	26.2	29.9	33.6	37.3	41.1	44.8	48.5	52.2	55.9	59.6	63.3	67.0	0.5
0.6	9.5	12.6	15.7	18.8	21.9	25.0	28.1	31.2	34.3	37.4	40.5	43.6	46.7	49.8	52.8	55.9	0.6
0.7	8.3	10.9	13.6	16.2	18.9	21.5	24.2	26.8	29.5	32.1	34.8	37.4	40.1	42.7	45.4	48.0	0.7
0.8	7.3	9.6	11.9	14.3	16.6	18.9	21.2	23.5	25.9	28.2	30.5	32.8	35.1	37.5	39.8	42.1	0.8
0.9	6.6	8.6	10.7	12.8	14.8	16.9	18.9	21.0	23.1	25.1	27.2	29.3	31.3	33.4	35.5	37.5	0.9
1.0	6.0	7.9	9.7	11.6	13.4	15.3	17.1	19.0	20.8	22.7	24.6	26.4	28.3	30.1	32.0	33.8	1.0
1.2	5.2	6.7	8.2	9.8	11.3	12.9	14.4	16.0	17.5	19.1	20.6	22.2	23.7	25.3	26.8	28.4	1.2
1.4	4.6	5.9	7.2	8.6	9.9	11.2	12.5	13.9	15.2	16.5	17.8	19.2	20.5	21.8	23.1	24.5	1.4
1.6	4.2	5.3	6.5	7.6	8.8	10.0	11.1	12.3	13.4	14.6	15.8	16.9	18.1	19.2	20.4	21.6	1.6
1.8	3.9	4.9	5.9	7.0	8.0	9.0	10.0	11.1	12.1	13.1	14.2	15.2	16.2	17.3	18.3	19.3	1.8
2.0	3.6	4.6	5.5	6.4	7.3	8.3	9.2	10.1	11.1	12.0	12.9	13.8	14.8	15.7	16.6	17.6	2.0
2.2	3.5	4.3	5.2	6.0	6.8	7.7	8.5	9.4	10.2	11.1	11.9	12.7	13.6	14.4	15.3	16.1	2.2
2.4	3.3	4.1	4.9	5.7	6.4	7.2	8.0	8.8	9.5	10.3	11.1	11.8	12.6	13.4	14.2	14.9	2.4
2.6	3.2	4.0	4.7	5.4	6.1	6.8	7.5	8.2	9.0	9.7	10.4	11.1	11.8	12.5	13.2	14.0	2.6
2.8	3.2	3.8	4.5	5.2	5.8	6.5	7.2	7.8	8.5	9.1	9.8	10.5	11.1	11.8	12.5	13.1	2.8
3.0	3.1	3.7	4.4	5.0	5.6	6.2	6.8	7.5	8.1	8.7	9.3	9.9	10.6	11.2	11.8	12.4	3.0
3.2	3.1	3.7	4.3	4.8	5.4	6.0	6.6	7.2	7.7	8.3	8.9	9.5	10.1	10.6	11.2	11.8	3.2
3.4	3.1	3.6	4.2	4.7	5.3	5.8	6.4	6.9	7.4	8.0	8.5	9.1	9.6	10.2	10.7	11.3	3.4
3.6		3.6	4.1	4.6	5.1	5.7	6.2	6.7	7.2	7.7	8.2	8.7	9.3	9.8	10.3	10.8	3.6
3.8		3.6	4.1	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	8.9	9.4	9.9	10.4	3.8
4.0		3.6	4.0	4.5	4.9	5.4	5.9	6.3	6.8	7.3	7.7	8.2	8.7	9.1	9.6	10.1	4.0
5.0				4.4	4.7	5.1	5.5	5.8	6.2	6.6	7.0	7.3	7.7	8.1	8.4	8.8	5.0
6.0							5.3	5.6	6.0	6.3	6.6	6.9	7.2	7.5	7.8	8.1	6.0
7.0										6.2	6.4	6.7	7.0	7.2	7.5	7.7	7.0
8.0													6.9	7.1	7.3	7.6	8.0

距離 Dist.	眼高 米(m)、呎(′)																距離 Dist.
	18m	19m	20m	21m	22m	23m	24m	25m	26m	27m	28m	29m	30m	32m	34m	36m	
	′ 59.1	′ 62.3	′ 65.6	′ 68.9	′ 72.2	′ 75.5	′ 78.7	′ 82.0	′ 85.3	′ 88.6	′ 91.9	′ 95.1	′ 98.4	′ 105.0	′ 111.5	′ 118.1	
Mile	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	Mile
0.1	334.2	352.8	371.3	389.9	408.5	427.0	445.6	464.1	482.7	501.3	519.9	538.4	557.0	594.1	631.3	668.4	0.1
0.2	167.2	176.5	185.7	195.0	204.3	213.6	222.9	232.1	241.4	250.7	260.0	269.3	278.6	297.1	315.7	334.3	0.2
0.3	111.5	117.7	123.9	130.1	136.3	142.5	148.6	154.8	161.0	167.2	173.4	179.6	185.8	198.2	210.5	222.9	0.3
0.4	83.7	88.4	93.0	97.6	102.3	106.9	111.6	116.2	120.8	125.5	130.1	134.8	139.4	148.7	158.0	167.3	0.4
0.5	67.0	70.8	74.5	78.2	81.9	85.6	89.3	93.0	96.8	100.5	104.2	107.9	111.6	119.0	126.5	133.9	0.5
0.6	55.9	59.0	62.1	65.2	68.3	71.4	74.5	77.6	80.7	83.8	86.9	90.0	93.1	99.3	105.5	111.6	0.6
0.7	48.0	50.7	53.3	56.0	58.6	61.3	63.9	66.6	69.3	71.9	74.6	77.2	79.9	85.2	90.5	95.8	0.7
0.8	42.1	44.4	46.8	49.1	51.4	53.7	56.0	58.4	60.7	63.0	65.3	67.6	70.0	74.6	79.2	83.9	0.8
0.9	37.5	39.6	41.6	43.7	45.8	47.8	49.9	52.0	54.0	56.1	58.1	60.2	62.3	66.4	70.5	74.6	0.9
1.0	33.8	35.7	37.6	39.4	41.3	43.1	45.0	46.8	48.7	50.6	52.4	54.3	56.1	59.8	63.5	67.3	1.0
1.2	28.4	29.9	31.5	33.0	34.5	36.1	37.6	39.2	40.7	42.3	43.8	45.4	46.9	50.0	53.1	56.2	1.2
1.4	24.5	25.8	27.1	28.4	29.8	31.1	32.4	33.7	35.1	36.4	37.7	39.1	40.4	43.0	45.7	48.3	1.4
1.6	21.6	22.7	23.9	25.0	26.2	27.4	28.5	29.7	30.8	32.0	33.2	34.3	35.5	37.8	40.1	42.5	1.6
1.8	19.3	20.4	21.4	22.4	23.5	24.5	25.5	26.5	27.6	28.6	29.6	30.7	31.7	33.8	35.8	37.9	1.8
2.0	17.6	18.5	19.4	20.3	21.3	22.2	23.1	24.1	25.0	25.9	26.8	27.8	28.7	30.6	32.4	34.3	2.0
2.2	16.1	17.0	17.8	18.7	19.5	20.3	21.2	22.0	22.9	23.7	24.6	25.4	26.3	27.9	29.6	31.3	2.2
2.4	14.9	15.7	16.5	17.3	18.0	18.8	19.6	20.4	21.1	21.9	22.7	23.5	24.2	25.8	27.3	28.9	2.4
2.6	14.0	14.7	15.4	16.1	16.8	17.5	18.2	19.0	19.7	20.4	21.1	21.8	22.5	24.0	25.4	26.8	2.6
2.8	13.1	13.8	14.4	15.1	15.8	16.4	17.1	17.8	18.4	19.1	19.8	20.4	21.1	22.4	23.7	25.1	2.8
3.0	12.4	13.0	13.7	14.3	14.9	15.5	16.1	16.7	17.4	18.0	18.6	19.2	19.8	21.1	22.3	23.6	3.0
3.2	11.8	12.4	13.0	13.5	14.1	14.7	15.3	15.9	16.4	17.0	17.6	18.2	18.8	19.9	21.1	22.2	3.2
3.4	11.3	11.8	12.4	12.9	13.5	14.0	14.5	15.1	15.6	16.2	16.7	17.3	17.8	18.9	20.0	21.1	3.4
3.6	10.8	11.3	11.8	12.4	12.9	13.4	13.9	14.4	14.9	15.5	16.0	16.5	17.0	18.0	19.1	20.1	3.6
3.8	10.4	10.9	11.4	11.9	12.4	12.9	13.3	13.8	14.3	14.8	15.3	15.8	16.3	17.2	18.2	19.2	3.8
4.0	10.1	10.5	11.0	11.4	11.9	12.4	12.8	13.3	13.8	14.2	14.7	15.2	15.6	16.6	17.5	18.4	4.0
5.0	8.8	9.2	9.5	9.9	10.3	10.7	11.0	11.4	11.8	12.1	12.5	12.9	13.3	14.0	14.7	15.5	5.0
6.0	8.1	8.4	8.7	9.0	9.4	9.7	10.0	10.3	10.6	10.9	11.2	11.5	11.8	12.4	13.1	13.7	6.0
7.0	7.7	8.0	8.3	8.5	8.8	9.1	9.3	9.6	9.9	10.1	10.4	10.7	10.9	11.5	12.0	12.5	7.0
8.0	7.6	7.8	8.0	8.3	8.5	8.7	9.0	9.2	9.4	9.7	9.9	10.1	10.4	10.8	11.3	11.8	8.0
9.0		7.7	7.9	8.2	8.4	8.6	8.8	9.0	9.2	9.4	9.6	9.8	10.0	10.4	10.8	11.2	9.0
10.0							8.7	8.9	9.1	9.3	9.4	9.6	9.8	10.2	10.6	10.9	10.0
11.0												9.6	9.7	10.1	10.4	10.7	11.0

高度及方位角計算表

（秋　吉　表）

Logarithmic Tables

for

Simultaneous Altitude and Azimuth

(Akiyosi's Tables)

高度及方位角計算表 h 表

h ：0°—90°—180°—270°—360°
見出シ：上 下 上 下

′	0° (180°)		1° (181°)		2° (182°)		3° (183°)		4° (184°)		′
	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	
	L. Sec.	L. Tan.	L. Sec.	L. Tan.	L. Sec.	L. Tan.	L. Sec.	L. Tan.	L. Sec.	L. Tan.	
0	0.00000	−−∞*	0.00007	8.242	0.00026	8.543	0.00060	8.719	0.00106	8.845	60
1	0.00000	6.464	0.00007	8.249	0.00027	8.547	0.00060	8.722	0.00107	8.846	59
2	0.00000	6.765	0.00007	8.256	0.00027	8.550	0.00061	8.724	0.00108	8.848	58
3	0.00000	6.941	0.00007	8.263	0.00028	8.554	0.00062	8.727	0.00109	8.850	57
4	0.00000	7.066	0.00008	8.270	0.00028	8.557	0.00062	8.729	0.00109	8.852	56
5	0.00000	7.163	0.00008	8.277	0.00029	8.561	0.00063	8.731	0.00110	8.854	55
6	0.00000	7.242	0.00008	8.283	0.00029	8.564	0.00064	8.734	0.00111	8.855	54
7	0.00000	7.309	0.00008	8.290	0.00030	8.568	0.00064	8.736	0.00112	8.857	53
8	0.00000	7.367	0.00008	8.296	0.00030	8.571	0.00065	8.738	0.00113	8.859	52
9	0.00000	7.418	0.00009	8.303	0.00031	8.575	0.00066	8.741	0.00114	8.861	51
10	0.00000	7.464	0.00009	8.309	0.00031	8.578	0.00066	8.743	0.00115	8.862	50
11	0.00000	7.505	0.00009	8.315	0.00032	8.581	0.00067	8.745	0.00116	8.864	49
12	0.00000	7.543	0.00010	8.321	0.00032	8.585	0.00068	8.747	0.00117	8.866	48
13	0.00000	7.578	0.00010	8.327	0.00033	8.588	0.00068	8.750	0.00118	8.868	47
14	0.00000	7.610	0.00010	8.333	0.00033	8.591	0.00069	8.752	0.00119	8.869	46
15	0.00000	7.640	0.00010	8.339	0.00033	8.594	0.00070	8.754	0.00120	8.871	45
16	0.00000	7.668	0.00011	8.345	0.00034	8.597	0.00071	8.756	0.00121	8.873	44
17	0.00001	7.694	0.00011	8.350	0.00034	8.601	0.00071	8.759	0.00121	8.874	43
18	0.00001	7.719	0.00011	8.356	0.00035	8.604	0.00072	8.761	0.00122	8.876	42
19	0.00001	7.742	0.00011	8.361	0.00036	8.607	0.00073	8.763	0.00123	8.878	41
20	0.00001	7.765	0.00012	8.367	0.00036	8.610	0.00074	8.765	0.00124	8.880	40
21	0.00001	7.786	0.00012	8.372	0.00037	8.613	0.00074	8.767	0.00125	8.881	39
22	0.00001	7.806	0.00012	8.378	0.00037	8.616	0.00075	8.770	0.00126	8.883	38
23	0.00001	7.825	0.00013	8.383	0.00038	8.619	0.00076	8.772	0.00127	8.885	37
24	0.00001	7.844	0.00013	8.388	0.00038	8.622	0.00077	8.774	0.00128	8.886	36
25	0.00001	7.862	0.00013	8.393	0.00039	8.625	0.00077	8.776	0.00129	8.888	35
26	0.00001	7.879	0.00014	8.398	0.00039	8.628	0.00078	8.778	0.00130	8.889	34
27	0.00001	7.895	0.00014	8.403	0.00040	8.631	0.00079	8.780	0.00131	8.891	33
28	0.00001	7.911	0.00014	8.408	0.00040	8.634	0.00080	8.782	0.00132	8.893	32
29	0.00002	7.926	0.00015	8.413	0.00041	8.637	0.00080	8.784	0.00133	8.894	31
30	0.00002	7.941	0.00015	8.418	0.00041	8.640	0.00081	8.786	0.00134	8.896	30
31	0.00002	7.955	0.00015	8.423	0.00042	8.643	0.00082	8.789	0.00135	8.898	29
32	0.00002	7.969	0.00016	8.428	0.00042	8.646	0.00083	8.791	0.00136	8.899	28
33	0.00002	7.982	0.00016	8.432	0.00043	8.649	0.00083	8.793	0.00137	8.901	27
34	0.00002	7.995	0.00016	8.437	0.00044	8.652	0.00084	8.795	0.00138	8.902	26
35	0.00002	8.008	0.00017	8.442	0.00044	8.654	0.00085	8.797	0.00139	8.904	25
36	0.00002	8.020	0.00017	8.446	0.00045	8.657	0.00086	8.799	0.00140	8.906	24
37	0.00003	8.032	0.00017	8.451	0.00045	8.660	0.00087	8.801	0.00141	8.907	23
38	0.00003	8.044	0.00018	8.455	0.00046	8.663	0.00087	8.803	0.00142	8.909	22
39	0.00003	8.055	0.00018	8.459	0.00046	8.665	0.00088	8.805	0.00143	8.910	21
40	0.00003	8.066	0.00018	8.464	0.00047	8.668	0.00089	8.807	0.00144	8.912	20
41	0.00003	8.077	0.00019	8.468	0.00048	8.671	0.00090	8.809	0.00145	8.913	19
42	0.00003	8.087	0.00019	8.472	0.00048	8.674	0.00091	8.811	0.00146	8.915	18
43	0.00003	8.097	0.00019	8.477	0.00049	8.676	0.00091	8.813	0.00147	8.916	17
44	0.00004	8.107	0.00020	8.481	0.00049	8.679	0.00092	8.815	0.00148	8.918	16
45	0.00004	8.117	0.00020	8.485	0.00050	8.682	0.00093	8.817	0.00149	8.920	15
46	0.00004	8.127	0.00021	8.489	0.00051	8.684	0.00094	8.818	0.00150	8.921	14
47	0.00004	8.136	0.00021	8.493	0.00051	8.687	0.00095	8.820	0.00152	8.923	13
48	0.00004	8.145	0.00021	8.497	0.00052	8.689	0.00096	8.822	0.00153	8.924	12
49	0.00004	8.154	0.00022	8.501	0.00052	8.692	0.00096	8.824	0.00154	8.926	11
50	0.00005	8.163	0.00022	8.505	0.00053	8.695	0.00097	8.826	0.00155	8.927	10
51	0.00005	8.171	0.00023	8.509	0.00054	8.697	0.00098	8.828	0.00156	8.929	9
52	0.00005	8.180	0.00023	8.513	0.00054	8.700	0.00099	8.830	0.00157	8.930	8
53	0.00005	8.188	0.00023	8.517	0.00055	8.702	0.00100	8.832	0.00158	8.932	7
54	0.00005	8.196	0.00024	8.521	0.00056	8.705	0.00101	8.834	0.00159	8.933	6
55	0.00006	8.204	0.00024	8.525	0.00056	8.707	0.00102	8.835	0.00160	8.935	5
56	0.00006	8.212	0.00025	8.528	0.00057	8.710	0.00102	8.837	0.00161	8.936	4
57	0.00006	8.220	0.00025	8.532	0.00058	8.712	0.00103	8.839	0.00162	8.938	3
58	0.00006	8.227	0.00026	8.536	0.00058	8.715	0.00104	8.841	0.00163	8.939	2
59	0.00006	8.235	0.00026	8.539	0.00059	8.717	0.00105	8.843	0.00164	8.940	1
60	0.00007	8.242	0.00026	8.543	0.00060	8.719	0.00106	8.845	0.00166	8.942	0
	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	′
	(359°)	179°	(358°)	178°	(357°)	177°	(356°)	176°	(355°)	175°	

* $h=0°$ ナルトキ $a=90°-(l\mp d)$ $h=180°$ ナルトキ $a=l-(90°\mp d)$ $\Big\}Z=0°, 180°$

第 6 表 I　高度及方位角計算表　*h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	5° (185°)		6° (186°)		7° (187°)		8° (188°)		9° (189°)		10° (190°)		′
	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	
	L. Sec.	L.Tan.	L. Sec.	L.Tan.	L. Sec.	L.Tan.	L. Sec.	L.Tan.	L. Sec.	L.Tan.	L. Sec.	L.Tan.	
0	0.00166	8.942	0.00239	9.022	0.00325	9.089	0.00425	9.148	0.00538	9.200	0.00665	9.246	60
1	0.00167	8.943	0.00240	9.023	0.00326	9.090	0.00426	9.149	0.00540	9.201	0.00667	9.247	59
2	0.00168	8.945	0.00241	9.024	0.00328	9.091	0.00428	9.150	0.00542	9.201	0.00669	9.248	58
3	0.00169	8.946	0.00243	9.025	0.00330	9.092	0.00430	9.151	0.00544	9.202	0.00672	9.249	57
4	0.00170	8.948	0.00244	9.026	0.00331	9.093	0.00432	9.151	0.00546	9.203	0.00674	9.249	56
5	0.00171	8.949	0.00245	9.028	0.00333	9.094	0.00434	9.152	0.00548	9.204	0.00676	9.250	55
6	0.00172	8.951	0.00247	9.029	0.00334	9.095	0.00435	9.153	0.00550	9.205	0.00678	9.251	54
7	0.00173	8.952	0.00248	9.030	0.00336	9.096	0.00437	9.154	0.00552	9.205	0.00681	9.251	53
8	0.00175	8.953	0.00249	9.031	0.00337	9.097	0.00439	9.155	0.00554	9.206	0.00683	9.252	52
9	0.00176	8.955	0.00251	9.032	0.00339	9.098	0.00441	9.156	0.00556	9.207	0.00685	9.253	51
10	0.00177	8.956	0.00252	9.034	0.00341	9.099	0.00443	9.157	0.00558	9.208	0.00687	9.254	50
11	0.00178	8.958	0.00253	9.035	0.00342	9.100	0.00444	9.158	0.00560	9.209	0.00690	9.254	49
12	0.00179	8.959	0.00255	9.036	0.00344	9.102	0.00446	9.159	0.00562	9.209	0.00692	9.255	48
13	0.00180	8.960	0.00256	9.037	0.00345	9.103	0.00448	9.160	0.00564	9.210	0.00694	9.256	47
14	0.00181	8.962	0.00258	9.038	0.00347	9.104	0.00450	9.160	0.00566	9.211	0.00696	9.257	46
15	0.00183	8.963	0.00259	9.039	0.00349	9.105	0.00452	9.161	0.00568	9.212	0.00699	9.257	45
16	0.00184	8.965	0.00260	9.041	0.00350	9.106	0.00454	9.162	0.00571	9.213	0.00701	9.258	44
17	0.00185	8.966	0.00262	9.042	0.00352	9.107	0.00455	9.163	0.00573	9.213	0.00703	9.259	43
18	0.00186	8.967	0.00263	9.043	0.00353	9.108	0.00457	9.164	0.00575	9.214	0.00706	9.259	42
19	0.00187	8.969	0.00264	9.044	0.00355	9.109	0.00459	9.165	0.00577	9.215	0.00708	9.260	41
20	0.00188	8.970	0.00266	9.045	0.00357	9.110	0.00461	9.166	0.00579	9.216	0.00710	9.261	40
21	0.00190	8.971	0.00267	9.046	0.00358	9.111	0.00463	9.167	0.00581	9.217	0.00712	9.262	39
22	0.00191	8.973	0.00269	9.048	0.00360	9.112	0.00465	9.168	0.00583	9.217	0.00715	9.262	38
23	0.00192	8.974	0.00270	9.049	0.00362	9.113	0.00467	9.168	0.00585	9.218	0.00717	9.263	37
24	0.00193	8.976	0.00272	9.050	0.00363	9.114	0.00468	9.169	0.00587	9.219	0.00719	9.264	36
25	0.00194	8.977	0.00273	9.051	0.00365	9.115	0.00470	9.170	0.00589	9.220	0.00722	9.264	35
26	0.00196	8.978	0.00274	9.052	0.00367	9.116	0.00472	9.171	0.00591	9.220	0.00724	9.265	34
27	0.00197	8.980	0.00276	9.053	0.00368	9.116	0.00474	9.172	0.00593	9.221	0.00726	9.266	33
28	0.00198	8.981	0.00277	9.054	0.00370	9.117	0.00476	9.173	0.00596	9.222	0.00729	9.267	32
29	0.00199	8.982	0.00279	9.056	0.00371	9.118	0.00478	9.174	0.00598	9.223	0.00731	9.267	31
30	0.00200	8.984	0.00280	9.057	0.00373	9.119	0.00480	9.174	0.00600	9.224	0.00733	9.268	30
31	0.00202	8.985	0.00282	9.058	0.00375	9.120	0.00482	9.175	0.00602	9.224	0.00736	9.269	29
32	0.00203	8.986	0.00283	9.059	0.00376	9.121	0.00483	9.176	0.00604	9.225	0.00738	9.269	28
33	0.00204	8.988	0.00284	9.060	0.00378	9.122	0.00485	9.177	0.00606	9.226	0.00740	9.270	27
34	0.00205	8.989	0.00286	9.061	0.00380	9.123	0.00487	9.178	0.00608	9.227	0.00743	9.271	26
35	0.00207	8.990	0.00287	9.062	0.00382	9.124	0.00489	9.179	0.00610	9.227	0.00745	9.271	25
36	0.00208	8.991	0.00289	9.063	0.00383	9.125	0.00491	9.180	0.00612	9.228	0.00748	9.272	24
37	0.00209	8.993	0.00290	9.064	0.00385	9.126	0.00493	9.181	0.00615	9.229	0.00750	9.273	23
38	0.00210	8.994	0.00292	9.066	0.00387	9.127	0.00495	9.181	0.00617	9.230	0.00752	9.274	22
39	0.00212	8.995	0.00293	9.067	0.00388	9.128	0.00497	9.182	0.00619	9.231	0.00755	9.274	21
40	0.00213	8.997	0.00295	9.068	0.00390	9.129	0.00499	9.183	0.00621	9.231	0.00757	9.275	20
41	0.00214	8.998	0.00296	9.069	0.00392	9.130	0.00501	9.184	0.00623	9.232	0.00759	9.276	19
42	0.00215	8.999	0.00298	9.070	0.00393	9.131	0.00503	9.185	0.00625	9.233	0.00762	9.276	18
43	0.00217	9.000	0.00299	9.071	0.00395	9.132	0.00505	9.186	0.00628	9.234	0.00764	9.277	17
44	0.00218	9.002	0.00301	9.072	0.00397	9.133	0.00506	9.186	0.00630	9.234	0.00767	9.278	16
45	0.00219	9.003	0.00302	9.073	0.00399	9.134	0.00508	9.187	0.00632	9.235	0.00769	9.278	15
46	0.00220	9.004	0.00304	9.074	0.00400	9.135	0.00510	9.188	0.00634	9.236	0.00771	9.279	14
47	0.00222	9.006	0.00305	9.075	0.00402	9.136	0.00512	9.189	0.00636	9.237	0.00774	9.280	13
48	0.00223	9.007	0.00307	9.076	0.00404	9.137	0.00514	9.190	0.00638	9.237	0.00776	9.280	12
49	0.00224	9.008	0.00308	9.078	0.00405	9.138	0.00516	9.191	0.00641	9.238	0.00779	9.281	11
50	0.00225	9.009	0.00310	9.079	0.00407	9.139	0.00518	9.191	0.00643	9.239	0.00781	9.282	10
51	0.00227	9.011	0.00311	9.080	0.00409	9.139	0.00520	9.192	0.00645	9.240	0.00783	9.283	9
52	0.00228	9.012	0.00313	9.081	0.00411	9.140	0.00522	9.193	0.00647	9.240	0.00786	9.283	8
53	0.00229	9.013	0.00314	9.082	0.00412	9.141	0.00524	9.194	0.00649	9.241	0.00788	9.284	7
54	0.00231	9.014	0.00316	9.083	0.00414	9.142	0.00526	9.195	0.00652	9.242	0.00791	9.285	6
55	0.00232	9.016	0.00317	9.084	0.00416	9.143	0.00528	9.196	0.00654	9.243	0.00793	9.285	5
56	0.00233	9.017	0.00319	9.085	0.00418	9.144	0.00530	9.196	0.00656	9.243	0.00796	9.286	4
57	0.00235	9.018	0.00320	9.086	0.00419	9.145	0.00532	9.197	0.00658	9.244	0.00798	9.287	3
58	0.00236	9.019	0.00322	9.087	0.00421	9.146	0.00534	9.198	0.00660	9.245	0.00800	9.287	2
59	0.00237	9.020	0.00323	9.088	0.00423	9.147	0.00536	9.199	0.00663	9.246	0.00803	9.288	1
60	0.00239	9.022	0.00325	9.089	0.00425	9.148	0.00538	9.200	0.00665	9.246	0.00805	9.289	0
′	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	′
	(354°)	174°	(353°)	173°	(352°)	172°	(351°)	171°	(350°)	170°	(349°)	169°	

第 6 表 I　高度及方位角計算表　*h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	11° (191°)		12° (192°)		13° (193°)		14° (194°)		15° (195°)		16° (196°)		′
	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	
	L. Sec.	L.Tan.	L. Sec.	L.Tan.	L. Sec.	L.Tan.	L. Sec.	L.Tan.	L. Sec.	L.Tan.	L. Sec.	L.Tan.	
0	0.00805	9.289	0.00960	9.327	0.01128	9.363	0.01310	9.397	0.01506	9.428	0.01716	9.457	60
1	0.00808	9.289	0.00962	9.328	0.01131	9.364	0.01313	9.397	0.01509	9.429	0.01719	9.458	59
2	0.00810	9.290	0.00965	9.329	0.01133	9.365	0.01316	9.398	0.01512	9.429	0.01723	9.458	58
3	0.00813	9.291	0.00968	9.329	0.01136	9.365	0.01319	9.398	0.01516	9.430	0.01727	9.459	57
4	0.00815	9.291	0.00970	9.330	0.01139	9.366	0.01322	9.399	0.01519	9.430	0.01730	9.459	56
5	0.00818	9.292	0.00973	9.331	0.01142	9.366	0.01325	9.399	0.01523	9.431	0.01734	9.460	55
6	0.00820	9.293	0.00976	9.331	0.01145	9.367	0.01329	9.400	0.01526	9.431	0.01738	9.460	54
7	0.00823	9.293	0.00978	9.332	0.01148	9.367	0.01332	9.401	0.01529	9.432	0.01741	9.461	53
8	0.00825	9.294	0.00981	9.332	0.01151	9.368	0.01335	9.401	0.01533	9.432	0.01745	9.461	52
9	0.00828	9.295	0.00984	9.333	0.01154	9.369	0.01338	9.402	0.01536	9.433	0.01749	9.462	51
10	0.00830	9.295	0.00987	9.334	0.01157	9.369	0.01341	9.402	0.01540	9.433	0.01752	9.462	50
11	0.00833	9.296	0.00989	9.334	0.01160	9.370	0.01344	9.403	0.01543	9.434	0.01756	9.463	49
12	0.00835	9.297	0.00992	9.335	0.01163	9.370	0.01348	9.403	0.01547	9.434	0.01760	9.463	48
13	0.00838	9.297	0.00995	9.335	0.01166	9.371	0.01351	9.404	0.01550	9.435	0.01763	9.464	47
14	0.00840	9.298	0.00998	9.336	0.01169	9.371	0.01354	9.404	0.01553	9.435	0.01767	9.464	46
15	0.00843	9.299	0.01000	9.337	0.01172	9.372	0.01357	9.405	0.01557	9.436	0.01771	9.465	45
16	0.00845	9.299	0.01003	9.337	0.01175	9.372	0.01360	9.405	0.01560	9.436	0.01774	9.465	44
17	0.00848	9.300	0.01006	9.338	0.01178	9.373	0.01364	9.406	0.01564	9.437	0.01778	9.466	43
18	0.00850	9.301	0.01009	9.339	0.01181	9.374	0.01367	9.406	0.01567	9.437	0.01782	9.466	42
19	0.00853	9.301	0.01011	9.339	0.01184	9.374	0.01370	9.407	0.01571	9.438	0.01785	9.466	41
20	0.00855	9.302	0.01014	9.340	0.01187	9.375	0.01373	9.407	0.01574	9.438	0.01789	9.467	40
21	0.00858	9.303	0.01017	9.340	0.01190	9.375	0.01377	9.408	0.01578	9.439	0.01793	9.467	39
22	0.00860	9.303	0.01020	9.341	0.01193	9.376	0.01380	9.408	0.01581	9.439	0.01796	9.468	38
23	0.00863	9.304	0.01022	9.342	0.01196	9.376	0.01383	9.409	0.01585	9.440	0.01800	9.468	37
24	0.00865	9.305	0.01025	9.342	0.01199	9.377	0.01386	9.410	0.01588	9.440	0.01804	9.469	36
25	0.00868	9.305	0.01028	9.343	0.01202	9.378	0.01390	9.410	0.01591	9.441	0.01808	9.469	35
26	0.00870	9.306	0.01031	9.343	0.01205	9.378	0.01393	9.411	0.01595	9.441	0.01811	9.470	34
27	0.00873	9.307	0.01033	9.344	0.01208	9.379	0.01396	9.411	0.01598	9.442	0.01815	9.470	33
28	0.00876	9.307	0.01036	9.345	0.01211	9.379	0.01399	9.412	0.01602	9.442	0.01819	9.471	32
29	0.00878	9.308	0.01039	9.345	0.01214	9.380	0.01403	9.412	0.01605	9.442	0.01823	9.471	31
30	0.00881	9.308	0.01042	9.346	0.01217	9.380	0.01406	9.413	0.01609	9.443	0.01826	9.472	30
31	0.00883	9.309	0.01045	9.346	0.01220	9.381	0.01409	9.413	0.01612	9.443	0.01830	9.472	29
32	0.00886	9.310	0.01047	9.347	0.01223	9.381	0.01412	9.414	0.01616	9.444	0.01834	9.473	28
33	0.00888	9.310	0.01050	9.348	0.01226	9.382	0.01416	9.414	0.01619	9.444	0.01838	9.473	27
34	0.00891	9.311	0.01053	9.348	0.01229	9.383	0.01419	9.415	0.01623	9.445	0.01841	9.473	26
35	0.00894	9.312	0.01056	9.349	0.01232	9.383	0.01422	9.415	0.01627	9.445	0.01845	9.474	25
36	0.00896	9.312	0.01059	9.349	0.01235	9.384	0.01426	9.416	0.01630	9.446	0.01849	9.474	24
37	0.00899	9.313	0.01062	9.350	0.01238	9.384	0.01429	9.416	0.01634	9.446	0.01853	9.475	23
38	0.00901	9.314	0.01064	9.351	0.01241	9.385	0.01432	9.417	0.01637	9.447	0.01856	9.475	22
39	0.00904	9.314	0.01067	9.351	0.01244	9.385	0.01435	9.417	0.01641	9.447	0.01860	9.476	21
40	0.00907	9.315	0.01070	9.352	0.01247	9.386	0.01439	9.418	0.01644	9.448	0.01864	9.476	20
41	0.00909	9.316	0.01073	9.352	0.01250	9.386	0.01442	9.418	0.01648	9.448	0.01868	9.477	19
42	0.00912	9.316	0.01076	9.353	0.01254	9.387	0.01445	9.419	0.01651	9.449	0.01871	9.477	18
43	0.00914	9.317	0.01079	9.353	0.01257	9.388	0.01449	9.419	0.01655	9.449	0.01875	9.478	17
44	0.00917	9.317	0.01081	9.354	0.01260	9.388	0.01452	9.420	0.01658	9.450	0.01879	9.478	16
45	0.00920	9.318	0.01084	9.355	0.01263	9.389	0.01455	9.420	0.01662	9.450	0.01883	9.479	15
46	0.00922	9.319	0.01087	9.355	0.01266	9.389	0.01459	9.421	0.01666	9.451	0.01887	9.479	14
47	0.00925	9.319	0.01090	9.356	0.01269	9.390	0.01462	9.421	0.01669	9.451	0.01890	9.479	13
48	0.00928	9.320	0.01093	9.356	0.01272	9.390	0.01465	9.422	0.01673	9.452	0.01894	9.480	12
49	0.00930	9.321	0.01096	9.357	0.01275	9.391	0.01469	9.422	0.01676	9.452	0.01898	9.480	11
50	0.00933	9.321	0.01099	9.358	0.01278	9.391	0.01472	9.423	0.01680	9.453	0.01902	9.481	10
51	0.00936	9.322	0.01102	9.358	0.01281	9.392	0.01475	9.423	0.01683	9.453	0.01906	9.481	9
52	0.00938	9.322	0.01104	9.359	0.01285	9.392	0.01479	9.424	0.01687	9.454	0.01910	9.482	8
53	0.00941	9.323	0.01107	9.359	0.01288	9.393	0.01482	9.425	0.01691	9.454	0.01913	9.482	7
54	0.00944	9.324	0.01110	9.360	0.01291	9.394	0.01485	9.425	0.01694	9.455	0.01917	9.483	6
55	0.00946	9.324	0.01113	9.360	0.01294	9.394	0.01489	9.426	0.01698	9.455	0.01921	9.483	5
56	0.00949	9.325	0.01116	9.361	0.01297	9.395	0.01492	9.426	0.01701	9.456	0.01925	9.484	4
57	0.00952	9.326	0.01119	9.362	0.01300	9.395	0.01495	9.427	0.01705	9.456	0.01929	9.484	3
58	0.00954	9.326	0.01122	9.362	0.01303	9.396	0.01499	9.427	0.01709	9.457	0.01933	9.484	2
59	0.00957	9.327	0.01125	9.363	0.01306	9.396	0.01502	9.428	0.01712	9.457	0.01937	9.485	1
60	0.00960	9.327	0.01128	9.363	0.01310	9.397	0.01506	9.428	0.01716	9.457	0.01940	9.485	0
′	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	′
	(348°)	168°	(347°)	167°	(346°)	166°	(345°)	165°	(344°)	164°	(343°)	163°	

第 6 表 I　高度及方位角計算表 *h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	17° (197°)			18° (198°)			19° (199°)			20° (200°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.01940	4	9.485	0.02179	4	9.512	0.02433	4	9.537	0.02701	5	9.561	60
1	0.01944	0	9.486	0.02183	0	9.512	0.02437	0	9.537	0.02706	1	9.561	59
2	0.01948	1	9.486	0.02188	1	9.513	0.02442	1	9.538	0.02711	1	9.562	58
3	0.01952	1	9.487	0.02192	1	9.513	0.02446	1	9.538	0.02715	2	9.562	57
4	0.01956	2	9.487	0.02196	2	9.513	0.02450	2	9.539	0.02720	2	9.563	56
5	0.01960	2	9.488	0.02200	2	9.514	0.02455	2	9.539	0.02724	3	9.563	55
6	0.01964	2	9.488	0.02204	2	9.514	0.02459	2	9.539	0.02729	3	9.563	54
7	0.01968	3	9.488	0.02208	3	9.515	0.02464	3	9.540	0.02734	4	9.564	53
8	0.01971	3	9.489	0.02212	3	9.515	0.02468	3	9.540	0.02738	4	9.564	52
9	0.01975	4	9.489	0.02216	4	9.516	0.02472	4	9.541	0.02743	5	9.565	51
10	0.01979	4	9.490	0.02221	4	9.516	0.02477	4	9.541	0.02748	5	9.565	50
11	0.01983	0	9.490	0.02225	0	9.516	0.02481	0	9.541	0.02752	1	9.565	49
12	0.01987	1	9.491	0.02229	1	9.517	0.02485	1	9.542	0.02757	1	9.566	48
13	0.01991	1	9.491	0.02233	1	9.517	0.02490	1	9.542	0.02762	2	9.566	47
14	0.01995	2	9.492	0.02237	2	9.518	0.02494	2	9.543	0.02766	2	9.567	46
15	0.01999	2	9.492	0.02241	2	9.518	0.02499	2	9.543	0.02771	3	9.567	45
16	0.02003	2	9.493	0.02246	2	9.519	0.02503	2	9.543	0.02776	3	9.567	44
17	0.02007	3	9.493	0.02250	3	9.519	0.02508	3	9.544	0.02780	4	9.568	43
18	0.02011	3	9.493	0.02254	3	9.519	0.02512	3	9.544	0.02785	4	9.568	42
19	0.02014	4	9.494	0.02258	4	9.520	0.02516	4	9.545	0.02790	5	9.568	41
20	0.02018	4	9.494	0.02262	4	9.520	0.02521	4	9.545	0.02794	5	9.569	40
21	0.02022	0	9.495	0.02266	0	9.521	0.02525	0	9.546	0.02799	1	9.569	39
22	0.02026	1	9.495	0.02271	1	9.521	0.02530	1	9.546	0.02804	1	9.570	38
23	0.02030	1	9.496	0.02275	1	9.522	0.02534	1	9.546	0.02808	2	9.570	37
24	0.02034	2	9.496	0.02279	2	9.522	0.02539	2	9.547	0.02813	2	9.570	36
25	0.02038	2	9.497	0.02283	2	9.522	0.02543	2	9.547	0.02818	3	9.571	35
26	0.02042	2	9.497	0.02287	2	9.523	0.02547	2	9.548	0.02822	3	9.571	34
27	0.02046	3	9.497	0.02292	3	9.523	0.02552	3	9.548	0.02827	4	9.572	33
28	0.02050	3	9.498	0.02296	3	9.524	0.02556	3	9.548	0.02832	4	9.572	32
29	0.02054	4	9.498	0.02300	4	9.524	0.02561	4	9.549	0.02837	5	9.572	31
30	0.02058	4	9.499	0.02304	4	9.525	0.02565	4	9.549	0.02841	5	9.573	30
31	0.02062	0	9.499	0.02309	0	9.525	0.02570	0	9.550	0.02846	1	9.573	29
32	0.02066	1	9.500	0.02313	1	9.525	0.02574	1	9.550	0.02851	1	9.574	28
33	0.02070	1	9.500	0.02317	1	9.526	0.02579	1	9.550	0.02855	2	9.574	27
34	0.02074	2	9.500	0.02321	2	9.526	0.02583	2	9.551	0.02860	2	9.574	26
35	0.02078	2	9.501	0.02326	2	9.527	0.02588	2	9.551	0.02865	3	9.575	25
36	0.02082	2	9.501	0.02330	2	9.527	0.02592	2	9.552	0.02870	3	9.575	24
37	0.02086	3	9.502	0.02334	3	9.527	0.02597	3	9.552	0.02874	4	9.575	23
38	0.02090	3	9.502	0.02338	3	9.528	0.02601	3	9.552	0.02879	4	9.576	22
39	0.02094	4	9.503	0.02343	4	9.528	0.02606	4	9.553	0.02884	5	9.576	21
40	0.02098	4	9.503	0.02347	4	9.529	0.02610	5	9.553	0.02889	5	9.577	20
41	0.02102	0	9.504	0.02351	0	9.529	0.02615	1	9.554	0.02893	1	9.577	19
42	0.02106	1	9.504	0.02355	1	9.530	0.02619	1	9.554	0.02898	1	9.577	18
43	0.02110	1	9.504	0.02360	1	9.530	0.02624	2	9.554	0.02903	2	9.578	17
44	0.02114	2	9.505	0.02364	2	9.530	0.02628	2	9.555	0.02908	2	9.578	16
45	0.02118	2	9.505	0.02368	2	9.531	0.02633	3	9.555	0.02913	3	9.578	15
46	0.02122	2	9.506	0.02372	2	9.531	0.02637	3	9.556	0.02917	3	9.579	14
47	0.02126	3	9.506	0.02377	3	9.532	0.02642	4	9.556	0.02922	4	9.579	13
48	0.02130	3	9.507	0.02381	3	9.532	0.02647	4	9.556	0.02927	4	9.580	12
49	0.02134	4	9.507	0.02385	4	9.532	0.02651	5	9.557	0.02932	5	9.580	11
50	0.02139	4	9.507	0.02390	4	9.533	0.02656	5	9.557	0.02937	5	9.580	10
51	0.02143	0	9.508	0.02394	0	9.533	0.02660	1	9.558	0.02941	1	9.581	9
52	0.02147	1	9.508	0.02398	1	9.534	0.02665	1	9.558	0.02946	1	9.581	8
53	0.02151	1	9.509	0.02403	1	9.534	0.02669	2	9.558	0.02951	2	9.582	7
54	0.02155	2	9.509	0.02407	2	9.535	0.02674	2	9.559	0.02956	2	9.582	6
55	0.02159	2	9.510	0.02411	2	9.535	0.02678	3	9.559	0.02961	3	9.582	5
56	0.02163	2	9.510	0.02416	2	9.535	0.02683	3	9.559	0.02965	3	9.583	4
57	0.02167	3	9.510	0.02420	3	9.536	0.02688	4	9.560	0.02970	4	9.583	3
58	0.02171	3	9.511	0.02424	3	9.536	0.02692	4	9.560	0.02975	4	9.583	2
59	0.02175	4	9.511	0.02429	4	9.537	0.02697	5	9.561	0.02980	5	9.584	1
60	0.02179		9.512	0.02433		9.537	0.02701		9.561	0.02985		9.584	0
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(342°)		162°	(341°)		161°	(340°)		160°	(339°)		159°	

第 6 表 I　高度及方位角計算表 *h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	21° (201°)			22° (202°)			23° (203°)			24° (204°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.02985	5	9.584	0.03283	5	9.606	0.03597	5	9.628	0.03927	6	9.649	60
1	0.02990	1	9.585	0.03289	1	9.607	0.03603	1	9.628	0.03933	1	9.649	59
2	0.02995	1	9.585	0.03294	1	9.607	0.03608	1	9.629	0.03938	1	9.649	58
3	0.02999	2	9.585	0.03299	2	9.607	0.03613	2	9.629	0.03944	2	9.650	57
4	0.03004	2	9.586	0.03304	2	9.608	0.03619	2	9.629	0.03950	2	9.650	56
5	0.03009	3	9.586	0.03309	3	9.608	0.03624	3	9.630	0.03955	3	9.650	55
6	0.03014	3	9.586	0.03314	3	9.609	0.03630	3	9.630	0.03961	4	9.651	54
7	0.03019	4	9.587	0.03319	4	9.609	0.03635	4	9.630	0.03966	4	9.651	53
8	0.03024	4	9.587	0.03324	4	9.609	0.03640	4	9.631	0.03972	5	9.651	52
9	0.03029	5	9.588	0.03330	5	9.610	0.03646	5	9.631	0.03978	5	9.652	51
10	0.03034	5	9.588	0.03335	5	9.610	0.03651	5	9.631	0.03983	6	9.652	50
11	0.03038	1	9.588	0.03340	1	9.610	0.03657	1	9.632	0.03989	1	9.652	49
12	0.03043	1	9.589	0.03345	1	9.611	0.03662	1	9.632	0.03995	1	9.653	48
13	0.03048	2	9.589	0.03350	2	9.611	0.03667	2	9.632	0.04000	2	9.653	47
14	0.03053	2	9.589	0.03355	2	9.611	0.03673	2	9.633	0.04006	2	9.653	46
15	0.03058	3	9.590	0.03360	3	9.612	0.03678	3	9.633	0.04012	3	9.654	45
16	0.03063	3	9.590	0.03366	3	9.612	0.03684	3	9.633	0.04018	4	9.654	44
17	0.03068	4	9.591	0.03371	4	9.613	0.03689	4	9.634	0.04023	4	9.654	43
18	0.03073	4	9.591	0.03376	4	9.613	0.03695	4	9.634	0.04029	5	9.655	42
19	0.03078	5	9.591	0.03381	5	9.613	0.03700	5	9.634	0.04035	5	9.655	41
20	0.03083	5	9.592	0.03386	5	9.614	0.03706	5	9.635	0.04040	6	9.655	40
21	0.03088	1	9.592	0.03392	1	9.614	0.03711	1	9.635	0.04046	1	9.656	39
22	0.03093	1	9.592	0.03397	1	9.614	0.03716	1	9.636	0.04052	1	9.656	38
23	0.03097	2	9.593	0.03402	2	9.615	0.03722	2	9.636	0.04058	2	9.656	37
24	0.03102	2	9.593	0.03407	2	9.615	0.03727	2	9.636	0.04063	2	9.657	36
25	0.03107	3	9.594	0.03412	3	9.615	0.03733	3	9.637	0.04069	3	9.657	35
26	0.03112	3	9.594	0.03418	3	9.616	0.03738	3	9.637	0.04075	4	9.657	34
27	0.03117	4	9.594	0.03423	4	9.616	0.03744	4	9.637	0.04080	4	9.658	33
28	0.03122	4	9.595	0.03428	4	9.617	0.03749	4	9.638	0.04086	5	9.658	32
29	0.03127	5	9.595	0.03433	5	9.617	0.03755	5	9.638	0.04092	5	9.658	31
30	0.03132	5	9.595	0.03438	5	9.617	0.03760	6	9.638	0.04098	6	9.659	30
31	0.03137	1	9.596	0.03444	1	9.618	0.03766	1	9.639	0.04103	1	9.659	29
32	0.03142	1	9.596	0.03449	1	9.618	0.03771	1	9.639	0.04109	1	9.659	28
33	0.03147	2	9.597	0.03454	2	9.618	0.03777	2	9.639	0.04115	2	9.660	27
34	0.03152	2	9.597	0.03459	2	9.619	0.03782	2	9.640	0.04121	2	9.660	26
35	0.03157	3	9.597	0.03465	3	9.619	0.03788	3	9.640	0.04127	3	9.660	25
36	0.03162	3	9.598	0.03470	3	9.619	0.03793	4	9.640	0.04132	4	9.661	24
37	0.03167	4	9.598	0.03475	4	9.620	0.03799	4	9.641	0.04138	4	9.661	23
38	0.03172	4	9.598	0.03480	4	9.620	0.03804	5	9.641	0.04144	5	9.661	22
39	0.03177	5	9.599	0.03486	5	9.620	0.03810	5	9.641	0.04150	5	9.662	21
40	0.03182	5	9.599	0.03491	5	9.621	0.03815	6	9.642	0.04156	6	9.662	20
41	0.03187	1	9.599	0.03496	1	9.621	0.03821	1	9.642	0.04161	1	9.662	19
42	0.03192	1	9.600	0.03502	1	9.621	0.03826	1	9.642	0.04167	1	9.663	18
43	0.03197	2	9.600	0.03507	2	9.622	0.03832	2	9.643	0.04173	2	9.663	17
44	0.03202	2	9.601	0.03512	2	9.622	0.03838	2	9.643	0.04179	2	9.663	16
45	0.03207	3	9.601	0.03517	3	9.623	0.03843	3	9.643	0.04185	3	9.664	15
46	0.03212	3	9.601	0.03523	3	9.623	0.03849	4	9.644	0.04190	4	9.664	14
47	0.03217	4	9.602	0.03528	4	9.623	0.03854	4	9.644	0.04196	4	9.664	13
48	0.03222	4	9.602	0.03533	4	9.624	0.03860	5	9.644	0.04202	5	9.665	12
49	0.03228	5	9.602	0.03539	5	9.624	0.03865	5	9.645	0.04208	5	9.665	11
50	0.03233	5	9.603	0.03544	5	9.624	0.03871	6	9.645	0.04214	6	9.665	10
51	0.03238	1	9.603	0.03549	1	9.625	0.03877	1	9.646	0.04220	1	9.666	9
52	0.03243	1	9.603	0.03555	1	9.625	0.03882	1	9.646	0.04225	1	9.666	8
53	0.03248	2	9.604	0.03560	2	9.625	0.03888	2	9.646	0.04231	2	9.666	7
54	0.03253	2	9.604	0.03565	2	9.626	0.03893	2	9.647	0.04237	2	9.667	6
55	0.03258	3	9.605	0.03571	3	9.626	0.03899	3	9.647	0.04243	3	9.667	5
56	0.03263	3	9.605	0.03576	3	9.626	0.03905	4	9.647	0.04249	4	9.667	4
57	0.03268	4	9.605	0.03581	4	9.627	0.03910	4	9.648	0.04255	4	9.668	3
58	0.03273	4	9.606	0.03587	4	9.627	0.03916	5	9.648	0.04261	5	9.668	2
59	0.03278	5	9.606	0.03592	5	9.628	0.03921	5	9.648	0.04267	5	9.668	1
60	0.03283		9.606	0.03597		9.628	0.03927		9.649	0.04272		9.669	0
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(338°)		158°	(337°)		157°	(336°)		156°	(335°)		155°	

第 6 表 I　高度及方位角計算表 h 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	25° (205°)			26° (206°)			27° (207°)			28° (208°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.04272	6	9.669	0.04634	6	9.688	0.05012	6	9.707	0.05407	7	9.726	60
1	0.04278	1	9.669	0.04640	1	9.689	0.05018	1	9.707	0.05413	1	9.726	59
2	0.04284	1	9.669	0.04646	1	9.689	0.05025	1	9.708	0.05420	1	9.726	58
3	0.04290	2	9.670	0.04652	2	9.689	0.05031	2	9.708	0.05427	2	9.727	57
4	0.04296	2	9.670	0.04659	2	9.689	0.05038	2	9.708	0.05433	3	9.727	56
5	0.04302	3	9.670	0.04665	3	9.690	0.05044	3	9.709	0.05440	4	9.727	55
6	0.04308	4	9.671	0.04671	4	9.690	0.05051	4	9.709	0.05447	4	9.728	54
7	0.04314	4	9.671	0.04677	4	9.690	0.05057	4	9.709	0.05454	5	9.728	53
8	0.04320	5	9.671	0.04683	5	9.691	0.05064	5	9.710	0.05460	6	9.728	52
9	0.04326	5	9.672	0.04690	5	9.691	0.05070	5	9.710	0.05467	6	9.728	51
10	0.04332	6	9.672	0.04696	6	9.691	0.05077	7	9.710	0.05474	7	9.729	50
11	0.04337	1	9.672	0.04702	1	9.692	0.05083	1	9.711	0.05481	1	9.729	49
12	0.04343	1	9.673	0.04708	1	9.692	0.05089	1	9.711	0.05487	1	9.729	48
13	0.04349	2	9.673	0.04714	2	9.692	0.05096	2	9.711	0.05494	2	9.730	47
14	0.04355	2	9.673	0.04721	2	9.693	0.05102	3	9.712	0.05501	3	9.730	46
15	0.04361	3	9.674	0.04727	3	9.693	0.05109	4	9.712	0.05508	4	9.730	45
16	0.04367	4	9.674	0.04733	4	9.693	0.05115	4	9.712	0.05515	4	9.731	44
17	0.04373	4	9.674	0.04739	4	9.694	0.05122	5	9.712	0.05521	5	9.731	43
18	0.04379	5	9.675	0.04746	5	9.694	0.05129	6	9.713	0.05528	6	9.731	42
19	0.04385	5	9.675	0.04752	5	9.694	0.05135	6	9.713	0.05535	6	9.731	41
20	0.04391	6	9.675	0.04758	6	9.695	0.05142	7	9.713	0.05542	7	9.732	40
21	0.04397	1	9.676	0.04764	1	9.695	0.05148	1	9.714	0.05549	1	9.732	39
22	0.04403	1	9.676	0.04771	1	9.695	0.05155	1	9.714	0.05555	1	9.732	38
23	0.04409	2	9.676	0.04777	2	9.696	0.05161	2	9.714	0.05562	2	9.733	37
24	0.04415	2	9.677	0.04783	2	9.696	0.05168	3	9.715	0.05569	3	9.733	36
25	0.04421	3	9.677	0.04789	3	9.696	0.05174	4	9.715	0.05576	4	9.733	35
26	0.04427	4	9.677	0.04796	4	9.696	0.05181	4	9.715	0.05583	4	9.734	34
27	0.04433	4	9.678	0.04802	4	9.697	0.05187	5	9.716	0.05590	5	9.734	33
28	0.04439	5	9.678	0.04808	5	9.697	0.05194	6	9.716	0.05596	6	9.734	32
29	0.04445	5	9.678	0.04815	5	9.697	0.05201	6	9.716	0.05603	6	9.734	31
30	0.04451	6	9.678	0.04821	6	9.698	0.05207	7	9.716	0.05610	7	9.735	30
31	0.04457	1	9.679	0.04827	1	9.698	0.05214	1	9.717	0.05617	1	9.735	29
32	0.04463	1	9.679	0.04833	1	9.698	0.05220	1	9.717	0.05624	1	9.735	28
33	0.04469	2	9.679	0.04840	2	9.699	0.05227	2	9.717	0.05631	2	9.736	27
34	0.04475	2	9.680	0.04846	2	9.699	0.05233	3	9.718	0.05638	3	9.736	26
35	0.04481	3	9.680	0.04852	3	9.699	0.05240	4	9.718	0.05645	4	9.736	25
36	0.04487	4	9.680	0.04859	4	9.700	0.05247	4	9.718	0.05651	4	9.737	24
37	0.04493	4	9.681	0.04865	4	9.700	0.05253	5	9.719	0.05658	5	9.737	23
38	0.04500	5	9.681	0.04871	5	9.700	0.05260	6	9.719	0.05665	6	9.737	22
39	0.04506	5	9.681	0.04878	5	9.701	0.05266	6	9.719	0.05672	6	9.737	21
40	0.04512	6	9.682	0.04884	6	9.701	0.05273	7	9.720	0.05679	7	9.738	20
41	0.04518	1	9.682	0.04890	1	9.701	0.05280	1	9.720	0.05686	1	9.738	19
42	0.04524	1	9.682	0.04897	1	9.702	0.05286	1	9.720	0.05693	1	9.738	18
43	0.04530	2	9.683	0.04903	2	9.702	0.05293	2	9.720	0.05700	2	9.739	17
44	0.04536	2	9.683	0.04910	2	9.702	0.05300	3	9.721	0.05707	3	9.739	16
45	0.04542	3	9.683	0.04916	3	9.702	0.05306	4	9.721	0.05714	4	9.739	15
46	0.04548	4	9.684	0.04922	4	9.703	0.05313	4	9.721	0.05721	4	9.740	14
47	0.04554	4	9.684	0.04929	4	9.703	0.05320	5	9.722	0.05727	5	9.740	13
48	0.04560	5	9.684	0.04935	5	9.703	0.05326	6	9.722	0.05734	6	9.740	12
49	0.04566	5	9.685	0.04941	5	9.704	0.05333	6	9.722	0.05741	6	9.740	11
50	0.04573	6	9.685	0.04948	6	9.704	0.05340	7	9.723	0.05748	7	9.741	10
51	0.04579	1	9.685	0.04954	1	9.704	0.05346	1	9.723	0.05755	1	9.741	9
52	0.04585	1	9.686	0.04961	1	9.705	0.05353	1	9.723	0.05762	1	9.741	8
53	0.04591	2	9.686	0.04967	2	9.705	0.05360	2	9.724	0.05769	2	9.742	7
54	0.04597	2	9.686	0.04973	2	9.705	0.05366	3	9.724	0.05776	3	9.742	6
55	0.04603	3	9.687	0.04980	3	9.706	0.05373	4	9.724	0.05783	4	9.742	5
56	0.04609	4	9.687	0.04986	4	9.706	0.05380	4	9.724	0.05790	4	9.743	4
57	0.04616	4	9.687	0.04993	4	9.706	0.05386	5	9.725	0.05797	5	9.743	3
58	0.04622	5	9.688	0.04999	5	9.707	0.05393	6	9.725	0.05804	6	9.743	2
59	0.04628	5	9.688	0.05005	5	9.707	0.05400	6	9.725	0.05811	6	9.743	1
60	0.04634		9.688	0.05012		9.707	0.05407		9.726	0.05818		9.744	0
′	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(334°)		154°	(333°)		153°	(332°)		152°	(331°)		151°	

第 6 表 I　高度及方位角計算表 h 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	29° (209°)			30° (210°)			31° (211°)			32° (212°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.05818	7	9.744	0.06247	7	9.761	0.06693	8	9.779	0.07158	8	9.796	60
1	0.05825	1	9.744	0.06254	1	9.762	0.06701	1	9.779	0.07166	1	9.796	59
2	0.05832	1	9.744	0.06262	1	9.762	0.06709	2	9.779	0.07174	2	9.796	58
3	0.05839	2	9.745	0.06269	2	9.762	0.06716	2	9.780	0.07182	2	9.797	57
4	0.05846	3	9.745	0.06276	3	9.763	0.06724	3	9.780	0.07190	3	9.797	56
5	0.05853	4	9.745	0.06283	4	9.763	0.06731	4	9.780	0.07197	4	9.797	55
6	0.05860	4	9.746	0.06291	4	9.763	0.06739	5	9.780	0.07205	5	9.797	54
7	0.05867	5	9.746	0.06298	5	9.763	0.06747	6	9.781	0.07213	6	9.798	53
8	0.05874	6	9.746	0.06305	6	9.764	0.06754	6	9.781	0.07221	6	9.798	52
9	0.05881	6	9.746	0.06313	6	9.764	0.06762	7	9.781	0.07229	7	9.798	51
10	0.05888	7	9.747	0.06320	7	9.764	0.06770	8	9.782	0.07237	8	9.799	50
11	0.05895	1	9.747	0.06327	1	9.765	0.06777	1	9.782	0.07245	1	9.799	49
12	0.05902	1	9.747	0.06335	1	9.765	0.06785	2	9.782	0.07253	2	9.799	48
13	0.05910	2	9.748	0.06342	2	9.765	0.06793	2	9.782	0.07261	2	9.799	47
14	0.05917	3	9.748	0.06350	3	9.766	0.06800	3	9.783	0.07269	3	9.800	46
15	0.05924	4	9.748	0.06357	4	9.766	0.06808	4	9.783	0.07277	4	9.800	45
16	0.05931	4	9.749	0.06364	4	9.766	0.06816	5	9.783	0.07285	5	9.800	44
17	0.05938	5	9.749	0.06372	5	9.766	0.06823	6	9.784	0.07293	6	9.801	43
18	0.05945	6	9.749	0.06379	6	9.767	0.06831	6	9.784	0.07301	6	9.801	42
19	0.05952	6	9.749	0.06386	6	9.767	0.06839	7	9.784	0.07309	7	9.801	41
20	0.05959	7	9.750	0.06394	7	9.767	0.06846	8	9.784	0.07317	8	9.801	40
21	0.05966	1	9.750	0.06401	1	9.768	0.06854	1	9.785	0.07325	1	9.802	39
22	0.05973	1	9.750	0.06409	1	9.768	0.06862	2	9.785	0.07333	2	9.802	38
23	0.05980	2	9.751	0.06416	2	9.768	0.06869	2	9.785	0.07341	2	9.802	37
24	0.05988	3	9.751	0.06423	3	9.768	0.06877	3	9.786	0.07349	3	9.803	36
25	0.05995	4	9.751	0.06431	4	9.769	0.06885	4	9.786	0.07357	4	9.803	35
26	0.06002	4	9.751	0.06438	4	9.769	0.06892	5	9.786	0.07365	5	9.803	34
27	0.06009	5	9.752	0.06446	5	9.769	0.06900	6	9.786	0.07373	6	9.803	33
28	0.06016	6	9.752	0.06453	6	9.770	0.06908	6	9.787	0.07381	6	9.804	32
29	0.06023	6	9.752	0.06461	6	9.770	0.06916	7	9.787	0.07389	7	9.804	31
30	0.06030	7	9.753	0.06468	7	9.770	0.06923	8	9.787	0.07397	8	9.804	30
31	0.06037	1	9.753	0.06475	1	9.770	0.06931	1	9.788	0.07405	1	9.804	29
32	0.06045	1	9.753	0.06483	1	9.771	0.06939	2	9.788	0.07413	2	9.805	28
33	0.06052	2	9.754	0.06490	2	9.771	0.06947	2	9.788	0.07421	2	9.805	27
34	0.06059	3	9.754	0.06498	3	9.771	0.06954	3	9.788	0.07429	3	9.805	26
35	0.06066	4	9.754	0.06505	4	9.772	0.06962	4	9.789	0.07437	4	9.806	25
36	0.06073	4	9.754	0.06513	4	9.772	0.06970	5	9.789	0.07445	5	9.806	24
37	0.06080	5	9.755	0.06520	5	9.772	0.06978	6	9.789	0.07454	6	9.806	23
38	0.06088	6	9.755	0.06528	6	9.772	0.06986	6	9.790	0.07462	6	9.806	22
39	0.06095	6	9.755	0.06535	6	9.773	0.06993	7	9.790	0.07470	7	9.807	21
40	0.06102	7	9.756	0.06543	8	9.773	0.07001	8	9.790	0.07478	8	9.807	20
41	0.06109	1	9.756	0.06550	1	9.773	0.07009	1	9.790	0.07486	1	9.807	19
42	0.06116	1	9.756	0.06558	2	9.774	0.07017	2	9.791	0.07494	2	9.808	18
43	0.06124	2	9.756	0.06565	2	9.774	0.07024	2	9.791	0.07502	2	9.808	17
44	0.06131	3	9.757	0.06573	3	9.774	0.07032	3	9.791	0.07510	3	9.808	16
45	0.06138	4	9.757	0.06580	4	9.774	0.07040	4	9.792	0.07518	4	9.808	15
46	0.06145	4	9.757	0.06588	5	9.775	0.07048	5	9.792	0.07527	5	9.809	14
47	0.06153	5	9.758	0.06595	6	9.775	0.07056	6	9.792	0.07535	6	9.809	13
48	0.06160	6	9.758	0.06603	6	9.775	0.07064	6	9.792	0.07543	6	9.809	12
49	0.06167	6	9.758	0.06610	7	9.776	0.07071	7	9.793	0.07551	7	9.809	11
50	0.06174	7	9.759	0.06618	8	9.776	0.07079	8	9.793	0.07559	8	9.810	10
51	0.06181	1	9.759	0.06625	1	9.776	0.07087	1	9.793	0.07567	1	9.810	9
52	0.06189	1	9.759	0.06633	2	9.776	0.07095	2	9.794	0.07575	2	9.810	8
53	0.06196	2	9.759	0.06640	2	9.777	0.07103	2	9.794	0.07584	2	9.811	7
54	0.06203	3	9.760	0.06648	3	9.777	0.07111	3	9.794	0.07592	3	9.811	6
55	0.06211	4	9.760	0.06656	4	9.777	0.07119	4	9.794	0.07600	4	9.811	5
56	0.06218	4	9.760	0.06663	5	9.778	0.07126	5	9.795	0.07608	5	9.811	4
57	0.06225	5	9.761	0.06671	6	9.778	0.07134	6	9.795	0.07616	6	9.812	3
58	0.06232	6	9.761	0.06678	6	9.778	0.07142	6	9.795	0.07624	6	9.812	2
59	0.06240	6	9.761	0.06686	7	9.778	0.07150	7	9.796	0.07633	7	9.812	1
60	0.06247		9.761	0.06693		9.779	0.07158		9.796	0.07641		9.813	0
′	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(330°)		150°	(329°)		149°	(328°)		148°	(327°)		147°	

第 6 表 I　高度及方位角計算表 *h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	33° (213°)			34° (214°)			35° (215°)			36° (216°)		
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.
0	0.07641	8	9.813	0.08143	9	9.829	0.08664	9	9.845	0.09204	9	9.861
1	0.07649	1	9.813	0.08151	1	9.829	0.08672	1	9.845	0.09213	1	9.862
2	0.07657	2	9.813	0.08160	2	9.830	0.08681	2	9.846	0.09223	2	9.862
3	0.07665	2	9.813	0.08168	3	9.830	0.08690	3	9.846	0.09232	3	9.862
4	0.07674	3	9.814	0.08177	4	9.830	0.08699	4	9.846	0.09241	4	9.862
5	0.07682	4	9.814	0.08185	5	9.830	0.08708	5	9.847	0.09250	5	9.863
6	0.07690	5	9.814	0.08194	5	9.831	0.08717	5	9.847	0.09259	5	9.863
7	0.07698	6	9.814	0.08202	6	9.831	0.08726	6	9.847	0.09269	6	9.863
8	0.07707	6	9.815	0.08211	7	9.831	0.08734	7	9.847	0.09278	7	9.863
9	0.07715	7	9.815	0.08219	8	9.831	0.08743	8	9.848	0.09287	8	9.864
10	0.07723	8	9.815	0.08228	9	9.832	0.08752	9	9.848	0.09296	9	9.864
11	0.07731	1	9.816	0.08237	1	9.832	0.08761	1	9.848	0.09306	1	9.864
12	0.07740	2	9.816	0.08245	2	9.832	0.08770	2	9.848	0.09315	2	9.864
13	0.07748	2	9.816	0.08254	3	9.833	0.08779	3	9.849	0.09324	3	9.865
14	0.07756	3	9.816	0.08262	4	9.833	0.08788	4	9.849	0.09333	4	9.865
15	0.07765	4	9.817	0.08271	5	9.833	0.08797	5	9.849	0.09343	5	9.865
16	0.07773	5	9.817	0.08280	5	9.833	0.08806	5	9.850	0.09352	5	9.866
17	0.07781	6	9.817	0.08288	6	9.834	0.08815	6	9.850	0.09361	6	9.866
18	0.07789	6	9.817	0.08297	7	9.834	0.08824	7	9.850	0.09370	7	9.866
19	0.07798	7	9.818	0.08305	8	9.834	0.08833	8	9.850	0.09380	8	9.866
20	0.07806	8	9.818	0.08314	9	9.834	0.08842	9	9.851	0.09389	9	9.867
21	0.07814	1	9.818	0.08323	1	9.835	0.08851	1	9.851	0.09398	1	9.867
22	0.07823	2	9.819	0.08331	2	9.835	0.08859	2	9.851	0.09408	2	9.867
23	0.07831	2	9.819	0.08340	3	9.835	0.08868	3	9.851	0.09417	3	9.867
24	0.07839	3	9.819	0.08349	4	9.836	0.08877	4	9.852	0.09426	4	9.868
25	0.07848	4	9.819	0.08357	5	9.836	0.08886	5	9.852	0.09435	5	9.868
26	0.07856	5	9.820	0.08366	5	9.836	0.08895	5	9.852	0.09445	5	9.868
27	0.07864	6	9.820	0.08375	6	9.836	0.08904	6	9.852	0.09454	6	9.868
28	0.07873	6	9.820	0.08383	7	9.837	0.08913	7	9.853	0.09463	7	9.869
29	0.07881	7	9.821	0.08392	8	9.837	0.08922	8	9.853	0.09473	8	9.869
30	0.07889	8	9.821	0.08401	9	9.837	0.08931	9	9.853	0.09482	9	9.869
31	0.07898	1	9.821	0.08409	1	9.837	0.08940	1	9.854	0.09491	1	9.869
32	0.07906	2	9.821	0.08418	2	9.838	0.08949	2	9.854	0.09501	2	9.870
33	0.07914	2	9.822	0.08427	3	9.838	0.08958	3	9.854	0.09510	3	9.870
34	0.07923	3	9.822	0.08435	4	9.838	0.08967	4	9.854	0.09520	4	9.870
35	0.07931	4	9.822	0.08444	5	9.838	0.08977	5	9.855	0.09529	5	9.871
36	0.07940	5	9.822	0.08453	5	9.839	0.08986	5	9.855	0.09538	5	9.871
37	0.07948	6	9.823	0.08462	6	9.839	0.08995	6	9.855	0.09548	6	9.871
38	0.07956	6	9.823	0.08470	7	9.839	0.09004	7	9.855	0.09557	7	9.871
39	0.07965	7	9.823	0.08479	8	9.840	0.09013	8	9.856	0.09566	8	9.872
40	0.07973	8	9.824	0.08488	9	9.840	0.09022	9	9.856	0.09576	9	9.872
41	0.07982	1	9.824	0.08496	1	9.840	0.09031	1	9.856	0.09585	1	9.872
42	0.07990	2	9.824	0.08505	2	9.840	0.09040	2	9.856	0.09595	2	9.872
43	0.07998	2	9.824	0.08514	3	9.841	0.09049	3	9.857	0.09604	3	9.873
44	0.08007	3	9.825	0.08523	4	9.841	0.09058	4	9.857	0.09614	4	9.873
45	0.08015	4	9.825	0.08531	5	9.841	0.09067	5	9.857	0.09623	5	9.873
46	0.08024	5	9.825	0.08540	5	9.841	0.09076	5	9.858	0.09632	5	9.873
47	0.08032	6	9.825	0.08549	6	9.842	0.09085	6	9.858	0.09642	6	9.874
48	0.08041	6	9.826	0.08558	7	9.842	0.09094	7	9.858	0.09651	7	9.874
49	0.08049	7	9.826	0.08567	8	9.842	0.09104	8	9.858	0.09661	8	9.874
50	0.08058	8	9.826	0.08575	9	9.843	0.09113	9	9.859	0.09670	9	9.874
51	0.08066	1	9.827	0.08584	1	9.843	0.09122	1	9.859	0.09680	1	9.875
52	0.08075	2	9.827	0.08593	2	9.843	0.09131	2	9.859	0.09689	2	9.875
53	0.08083	2	9.827	0.08602	3	9.843	0.09140	3	9.859	0.09699	3	9.875
54	0.08092	3	9.827	0.08611	4	9.844	0.09149	4	9.860	0.09708	4	9.876
55	0.08100	4	9.828	0.08619	5	9.844	0.09158	5	9.860	0.09718	5	9.876
56	0.08109	5	9.828	0.08628	5	9.844	0.09168	5	9.860	0.09727	5	9.876
57	0.08117	6	9.828	0.08637	6	9.844	0.09177	6	9.860	0.09737	6	9.876
58	0.08126	6	9.828	0.08646	7	9.845	0.09186	7	9.861	0.09746	7	9.877
59	0.08134	7	9.829	0.08655	8	9.845	0.09195	8	9.861	0.09756	8	9.877
60	0.08143		9.829	0.08664		9.845	0.09204		9.861	0.09765		9.877

K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	′
(326°) 146°		(325°) 145°		(324°) 144°		(323°) 143°		

第 6 表 I　高度及方位角計算表 *h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	37° (217°)			38° (218°)			39° (219°)			40° (220°)		
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.
0	0.09765	10	9.877	0.10347	10	9.893	0.10950	10	9.908	0.11575	11	9.924
1	0.09775	1	9.877	0.10357	1	9.893	0.10960	1	9.909	0.11585	1	9.924
2	0.09784	2	9.878	0.10367	2	9.893	0.10970	2	9.909	0.11596	2	9.924
3	0.09794	3	9.878	0.10376	3	9.894	0.10980	3	9.909	0.11606	3	9.925
4	0.09803	4	9.878	0.10386	4	9.894	0.10991	4	9.909	0.11617	4	9.925
5	0.09813	5	9.878	0.10396	5	9.894	0.11001	5	9.910	0.11628	6	9.925
6	0.09822	6	9.879	0.10406	6	9.894	0.11011	6	9.910	0.11638	7	9.925
7	0.09832	7	9.879	0.10416	7	9.895	0.11022	7	9.910	0.11649	8	9.926
8	0.09841	8	9.879	0.10426	8	9.895	0.11032	8	9.910	0.11660	9	9.926
9	0.09851	9	9.879	0.10436	9	9.895	0.11042	9	9.911	0.11670	10	9.926
10	0.09861	10	9.880	0.10446	10	9.895	0.11052	10	9.911	0.11681	11	9.926
11	0.09870	1	9.880	0.10456	1	9.896	0.11063	1	9.911	0.11692	1	9.927
12	0.09880	2	9.880	0.10466	2	9.896	0.11073	2	9.911	0.11702	2	9.927
13	0.09889	3	9.881	0.10476	3	9.896	0.11083	3	9.912	0.11713	3	9.927
14	0.09899	4	9.881	0.10486	4	9.896	0.11094	4	9.912	0.11724	4	9.927
15	0.09909	5	9.881	0.10496	5	9.897	0.11104	5	9.912	0.11734	6	9.928
16	0.09918	6	9.881	0.10505	6	9.897	0.11114	6	9.912	0.11745	7	9.928
17	0.09928	7	9.882	0.10515	7	9.897	0.11125	7	9.913	0.11756	8	9.928
18	0.09937	8	9.882	0.10525	8	9.897	0.11135	8	9.913	0.11766	9	9.928
19	0.09947	9	9.882	0.10535	9	9.898	0.11145	9	9.913	0.11777	10	9.929
20	0.09957	10	9.882	0.10545	10	9.898	0.11156	10	9.914	0.11788	11	9.929
21	0.09966	1	9.883	0.10555	1	9.898	0.11166	1	9.914	0.11799	1	9.929
22	0.09976	2	9.883	0.10565	2	9.899	0.11176	2	9.914	0.11809	2	9.929
23	0.09986	3	9.883	0.10575	3	9.899	0.11187	3	9.914	0.11820	3	9.930
24	0.09995	4	9.883	0.10585	4	9.899	0.11197	4	9.915	0.11831	4	9.930
25	0.10005	5	9.884	0.10595	5	9.899	0.11207	5	9.915	0.11842	6	9.930
26	0.10015	6	9.884	0.10605	6	9.900	0.11218	6	9.915	0.11852	7	9.930
27	0.10024	7	9.884	0.10615	7	9.900	0.11228	7	9.915	0.11863	8	9.931
28	0.10034	8	9.884	0.10625	8	9.900	0.11239	8	9.916	0.11874	9	9.931
29	0.10044	9	9.885	0.10636	9	9.900	0.11249	9	9.916	0.11885	10	9.931
30	0.10053	10	9.885	0.10646	10	9.901	0.11259	10	9.916	0.11895	11	9.931
31	0.10063	1	9.885	0.10656	1	9.901	0.11270	1	9.916	0.11906	1	9.932
32	0.10073	2	9.886	0.10666	2	9.901	0.11280	2	9.917	0.11917	2	9.932
33	0.10082	3	9.886	0.10676	3	9.901	0.11291	3	9.917	0.11928	3	9.932
34	0.10092	4	9.886	0.10686	4	9.902	0.11301	4	9.917	0.11939	4	9.933
35	0.10102	5	9.886	0.10696	5	9.902	0.11312	5	9.917	0.11949	6	9.933
36	0.10112	6	9.887	0.10706	6	9.902	0.11322	6	9.918	0.11960	7	9.933
37	0.10121	7	9.887	0.10716	7	9.902	0.11332	7	9.918	0.11971	8	9.933
38	0.10131	8	9.887	0.10726	8	9.903	0.11343	8	9.918	0.11982	9	9.934
39	0.10141	9	9.887	0.10736	9	9.903	0.11353	9	9.918	0.11993	10	9.934
40	0.10151	10	9.888	0.10746	10	9.903	0.11364	11	9.919	0.12004	11	9.934
41	0.10160	1	9.888	0.10756	1	9.903	0.11374	1	9.919	0.12015	1	9.934
42	0.10170	2	9.888	0.10767	2	9.904	0.11385	2	9.919	0.12025	2	9.935
43	0.10180	3	9.888	0.10777	3	9.904	0.11395	3	9.919	0.12036	3	9.935
44	0.10190	4	9.889	0.10787	4	9.904	0.11406	4	9.920	0.12047	4	9.935
45	0.10199	5	9.889	0.10797	5	9.904	0.11416	6	9.920	0.12058	6	9.935
46	0.10209	6	9.889	0.10807	6	9.905	0.11427	7	9.920	0.12069	7	9.936
47	0.10219	7	9.889	0.10817	7	9.905	0.11437	8	9.920	0.12080	8	9.936
48	0.10229	8	9.890	0.10827	8	9.905	0.11448	9	9.921	0.12091	9	9.936
49	0.10239	9	9.890	0.10838	9	9.906	0.11458	10	9.921	0.12102	10	9.936
50	0.10248	10	9.890	0.10848	10	9.906	0.11469	11	9.921	0.12113	11	9.937
51	0.10258	1	9.890	0.10858	1	9.906	0.11479	1	9.922	0.12123	1	9.937
52	0.10268	2	9.891	0.10868	2	9.906	0.11490	2	9.922	0.12134	2	9.937
53	0.10278	3	9.891	0.10878	3	9.907	0.11501	3	9.922	0.12145	3	9.937
54	0.10288	4	9.891	0.10888	4	9.907	0.11511	4	9.922	0.12156	4	9.938
55	0.10298	5	9.892	0.10899	5	9.907	0.11522	6	9.923	0.12167	6	9.938
56	0.10307	6	9.892	0.10909	6	9.907	0.11532	7	9.923	0.12178	7	9.938
57	0.10317	7	9.892	0.10919	7	9.908	0.11543	8	9.923	0.12189	8	9.938
58	0.10327	8	9.892	0.10929	8	9.908	0.11553	9	9.923	0.12200	9	9.939
59	0.10337	9	9.893	0.10940	9	9.908	0.11564	10	9.924	0.12211	10	9.939
60	0.10347		9.893	0.10950		9.908	0.11575		9.924	0.12222		9.939

K_1	Z_1	K_1	Z_1	K_1	Z_1	K_1	Z_1	′
(322°) 142°		(321°) 141°		(320°) 140°		(319°) 139°		

第 6 表 I　高度及方位角計算表 *h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	41° (221°)			42° (222°)			43° (223°)			44° (224°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.12222	11	9.939	0.12893	11	9.954	0.13587	12	9.970	0.14307	12	9.985	60
1	0.12233	1	9.939	0.12904	1	9.955	0.13599	1	9.970	0.14319	1	9.985	59
2	0.12244	2	9.940	0.12915	2	9.955	0.13611	2	9.970	0.14331	2	9.985	58
3	0.12255	3	9.940	0.12927	3	9.955	0.13623	4	9.970	0.14343	4	9.986	57
4	0.12266	4	9.940	0.12938	4	9.955	0.13634	5	9.971	0.14355	5	9.986	56
5	0.12277	6	9.940	0.12950	6	9.956	0.13646	6	9.971	0.14368	6	9.986	55
6	0.12288	7	9.941	0.12961	7	9.956	0.13658	7	9.971	0.14380	7	9.986	54
7	0.12299	8	9.941	0.12972	8	9.956	0.13670	8	9.971	0.14392	8	9.987	53
8	0.12310	9	9.941	0.12984	9	9.956	0.13682	10	9.972	0.14404	10	9.987	52
9	0.12321	10	9.941	0.12995	10	9.957	0.13694	11	9.972	0.14417	11	9.987	51
10	0.12332	11	9.942	0.13007	11	9.957	0.13705	12	9.972	0.14429	12	9.987	50
11	0.12343	1	9.942	0.13018	1	9.957	0.13717	1	9.972	0.14441	1	9.988	49
12	0.12354	2	9.942	0.13030	2	9.957	0.13729	2	9.973	0.14453	2	9.988	48
13	0.12365	3	9.942	0.13041	3	9.958	0.13741	4	9.973	0.14466	4	9.988	47
14	0.12376	4	9.943	0.13053	4	9.958	0.13753	5	9.973	0.14478	5	9.988	46
15	0.12387	6	9.943	0.13064	6	9.958	0.13765	6	9.973	0.14490	6	9.989	45
16	0.12399	7	9.943	0.13076	7	9.959	0.13777	7	9.974	0.14503	7	9.989	44
17	0.12410	8	9.943	0.13087	8	9.959	0.13789	8	9.974	0.14515	8	9.989	43
18	0.12421	9	9.944	0.13098	9	9.959	0.13800	10	9.974	0.14527	10	9.989	42
19	0.12432	10	9.944	0.13110	10	9.959	0.13812	11	9.974	0.14540	11	9.990	41
20	0.12443	11	9.944	0.13121	12	9.960	0.13824	12	9.975	0.14552	12	9.990	40
21	0.12454	1	9.945	0.13133	1	9.960	0.13836	1	9.975	0.14564	1	9.990	39
22	0.12465	2	9.945	0.13145	2	9.960	0.13848	2	9.975	0.14577	2	9.990	38
23	0.12476	3	9.945	0.13156	4	9.960	0.13860	4	9.975	0.14589	4	9.991	37
24	0.12487	4	9.945	0.13168	5	9.961	0.13872	5	9.976	0.14601	5	9.991	36
25	0.12499	6	9.946	0.13179	6	9.961	0.13884	6	9.976	0.14614	6	9.991	35
26	0.12510	7	9.946	0.13191	7	9.961	0.13896	7	9.976	0.14626	7	9.991	34
27	0.12521	8	9.946	0.13202	8	9.961	0.13908	8	9.976	0.14639	8	9.992	33
28	0.12532	9	9.946	0.13214	10	9.962	0.13920	10	9.977	0.14651	10	9.992	32
29	0.12543	10	9.947	0.13225	11	9.962	0.13932	11	9.977	0.14663	11	9.992	31
30	0.12554	11	9.947	0.13237	12	9.962	0.13944	12	9.977	0.14676	12	9.992	30
31	0.12566	1	9.947	0.13248	1	9.962	0.13956	1	9.978	0.14688	1	9.993	29
32	0.12577	2	9.947	0.13260	2	9.963	0.13968	2	9.978	0.14701	2	9.993	28
33	0.12588	3	9.948	0.13272	4	9.963	0.13980	4	9.978	0.14713	4	9.993	27
34	0.12599	4	9.948	0.13283	5	9.963	0.13992	5	9.978	0.14726	5	9.993	26
35	0.12610	6	9.948	0.13295	6	9.963	0.14004	6	9.979	0.14738	6	9.994	25
36	0.12622	7	9.948	0.13306	7	9.964	0.14016	7	9.979	0.14750	7	9.994	24
37	0.12633	8	9.949	0.13318	8	9.964	0.14028	8	9.979	0.14763	8	9.994	23
38	0.12644	9	9.949	0.13330	10	9.964	0.14040	10	9.979	0.14775	10	9.994	22
39	0.12655	10	9.949	0.13341	11	9.964	0.14052	11	9.980	0.14788	11	9.995	21
40	0.12666	11	9.949	0.13353	12	9.965	0.14064	12	9.980	0.14800	13	9.995	20
41	0.12678	1	9.950	0.13365	1	9.965	0.14076	1	9.980	0.14813	1	9.995	19
42	0.12689	2	9.950	0.13376	2	9.965	0.14088	2	9.980	0.14825	3	9.995	18
43	0.12700	3	9.950	0.13388	4	9.965	0.14100	4	9.981	0.14838	4	9.996	17
44	0.12712	4	9.950	0.13400	5	9.966	0.14112	5	9.981	0.14850	5	9.996	16
45	0.12723	6	9.951	0.13411	6	9.966	0.14124	6	9.981	0.14863	7	9.996	15
46	0.12734	7	9.951	0.13423	7	9.966	0.14136	7	9.981	0.14875	8	9.996	14
47	0.12745	8	9.951	0.13435	8	9.966	0.14149	8	9.982	0.14888	9	9.997	13
48	0.12757	9	9.951	0.13446	10	9.967	0.14161	10	9.982	0.14900	10	9.997	12
49	0.12768	10	9.952	0.13458	11	9.967	0.14173	11	9.982	0.14913	12	9.997	11
50	0.12779	11	9.952	0.13470	12	9.967	0.14185	12	9.982	0.14926	13	9.997	10
51	0.12791	1	9.952	0.13482	1	9.967	0.14197	1	9.983	0.14938	1	9.998	9
52	0.12802	2	9.952	0.13493	2	9.968	0.14209	2	9.983	0.14951	3	9.998	8
53	0.12813	3	9.953	0.13505	4	9.968	0.14221	4	9.983	0.14963	4	9.998	7
54	0.12825	4	9.953	0.13517	5	9.968	0.14234	5	9.983	0.14976	5	9.998	6
55	0.12836	6	9.953	0.13528	6	9.968	0.14246	6	9.984	0.14988	7	9.999	5
56	0.12847	7	9.953	0.13540	7	9.969	0.14258	7	9.984	0.15001	8	9.999	4
57	0.12859	8	9.954	0.13552	8	9.969	0.14270	8	9.984	0.15014	9	9.999	3
58	0.12870	9	9.954	0.13564	10	9.969	0.14282	10	9.984	0.15026	10	9.999	2
59	0.12881	10	9.954	0.13575	11	9.969	0.14294	11	9.985	0.15039	12	0.000	1
60	0.12893		9.954	0.13587		9.970	0.14307		9.985	0.15051		0.000	0
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(318°) 138°			(317°) 137°			(316°) 136°			(315°) 135°			

第 6 表 I　高度及方位角計算表 *h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	45° (225°)			46° (226°)			47° (227°)			48° (228°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.15051	13	0.000	0.15823	13	0.015	0.16622	14	0.030	0.17449	14	0.046	60
1	0.15064	1	0.000	0.15836	1	0.015	0.16635	1	0.031	0.17463	1	0.046	59
2	0.15077	3	0.001	0.15849	3	0.016	0.16649	3	0.031	0.17477	3	0.046	58
3	0.15089	4	0.001	0.15862	4	0.016	0.16662	4	0.031	0.17491	4	0.046	57
4	0.15102	5	0.001	0.15875	5	0.016	0.16676	6	0.031	0.17505	6	0.047	56
5	0.15115	7	0.001	0.15888	7	0.016	0.16690	7	0.032	0.17519	7	0.047	55
6	0.15127	8	0.002	0.15902	8	0.017	0.16703	8	0.032	0.17533	8	0.047	54
7	0.15140	9	0.002	0.15915	9	0.017	0.16717	10	0.032	0.17547	10	0.047	53
8	0.15153	10	0.002	0.15928	10	0.017	0.16730	11	0.032	0.17561	11	0.048	52
9	0.15165	12	0.002	0.15941	12	0.017	0.16744	13	0.033	0.17576	13	0.048	51
10	0.15178	13	0.003	0.15954	13	0.018	0.16758	14	0.033	0.17590	14	0.048	50
11	0.15191	1	0.003	0.15967	1	0.018	0.16771	1	0.033	0.17604	1	0.048	49
12	0.15204	3	0.003	0.15980	3	0.018	0.16785	3	0.033	0.17618	3	0.049	48
13	0.15216	4	0.003	0.15994	4	0.018	0.16798	4	0.034	0.17632	4	0.049	47
14	0.15229	5	0.004	0.16007	5	0.019	0.16812	6	0.034	0.17646	6	0.049	46
15	0.15242	7	0.004	0.16020	7	0.019	0.16826	7	0.034	0.17660	7	0.049	45
16	0.15255	8	0.004	0.16033	8	0.019	0.16839	8	0.034	0.17674	8	0.050	44
17	0.15267	9	0.004	0.16046	9	0.019	0.16853	10	0.035	0.17689	10	0.050	43
18	0.15280	10	0.005	0.16060	10	0.020	0.16867	11	0.035	0.17703	11	0.050	42
19	0.15293	12	0.005	0.16073	12	0.020	0.16880	13	0.035	0.17717	13	0.050	41
20	0.15306	13	0.005	0.16086	13	0.020	0.16894	14	0.035	0.17731	14	0.051	40
21	0.15318	1	0.005	0.16099	1	0.020	0.16908	1	0.036	0.17745	1	0.051	39
22	0.15331	3	0.006	0.16113	3	0.021	0.16922	3	0.036	0.17760	3	0.051	38
23	0.15344	4	0.006	0.16126	4	0.021	0.16935	4	0.036	0.17774	4	0.051	37
24	0.15357	5	0.006	0.16139	5	0.021	0.16949	6	0.036	0.17788	6	0.052	36
25	0.15370	7	0.006	0.16152	7	0.021	0.16963	7	0.037	0.17802	7	0.052	35
26	0.15382	8	0.007	0.16166	8	0.022	0.16977	8	0.037	0.17816	8	0.052	34
27	0.15395	9	0.007	0.16179	9	0.022	0.16990	10	0.037	0.17831	10	0.052	33
28	0.15408	10	0.007	0.16192	10	0.022	0.17004	11	0.037	0.17845	11	0.053	32
29	0.15421	12	0.007	0.16205	12	0.022	0.17018	13	0.038	0.17859	13	0.053	31
30	0.15434	13	0.008	0.16219	13	0.023	0.17032	14	0.038	0.17874	14	0.053	30
31	0.15447	1	0.008	0.16232	1	0.023	0.17045	1	0.038	0.17888	1	0.053	29
32	0.15460	3	0.008	0.16245	3	0.023	0.17059	3	0.038	0.17902	3	0.054	28
33	0.15472	4	0.008	0.16259	4	0.024	0.17073	4	0.039	0.17916	4	0.054	27
34	0.15485	5	0.009	0.16272	5	0.024	0.17087	6	0.039	0.17931	6	0.054	26
35	0.15498	7	0.009	0.16285	7	0.024	0.17101	7	0.039	0.17945	7	0.054	25
36	0.15511	8	0.009	0.16299	8	0.024	0.17115	8	0.039	0.17959	8	0.055	24
37	0.15524	9	0.009	0.16312	9	0.025	0.17128	10	0.040	0.17974	10	0.055	23
38	0.15537	10	0.010	0.16326	10	0.025	0.17142	11	0.040	0.17988	11	0.055	22
39	0.15550	12	0.010	0.16339	12	0.025	0.17156	13	0.040	0.18002	13	0.055	21
40	0.15563	13	0.010	0.16352	13	0.025	0.17170	14	0.040	0.18017	14	0.056	20
41	0.15576	1	0.010	0.16366	1	0.026	0.17184	1	0.041	0.18031	1	0.056	19
42	0.15589	3	0.011	0.16379	3	0.026	0.17198	3	0.041	0.18045	3	0.056	18
43	0.15602	4	0.011	0.16392	4	0.026	0.17212	4	0.041	0.18060	4	0.057	17
44	0.15615	5	0.011	0.16406	5	0.026	0.17225	6	0.041	0.18074	6	0.057	16
45	0.15627	7	0.011	0.16419	7	0.027	0.17239	7	0.042	0.18089	7	0.057	15
46	0.15640	8	0.012	0.16433	8	0.027	0.17253	8	0.042	0.18103	8	0.057	14
47	0.15653	9	0.012	0.16446	9	0.027	0.17267	10	0.042	0.18118	10	0.058	13
48	0.15666	10	0.012	0.16460	10	0.027	0.17281	11	0.043	0.18132	11	0.058	12
49	0.15679	12	0.012	0.16473	12	0.028	0.17295	13	0.043	0.18146	13	0.058	11
50	0.15692	13	0.013	0.16487	14	0.028	0.17309	14	0.043	0.18161	14	0.058	10
51	0.15705	1	0.013	0.16500	1	0.028	0.17323	1	0.043	0.18175	1	0.059	9
52	0.15718	3	0.013	0.16514	3	0.028	0.17337	3	0.044	0.18190	3	0.059	8
53	0.15731	4	0.013	0.16527	4	0.029	0.17351	4	0.044	0.18204	4	0.059	7
54	0.15745	5	0.014	0.16541	6	0.029	0.17365	6	0.044	0.18219	6	0.059	6
55	0.15758	7	0.014	0.16554	7	0.029	0.17379	7	0.044	0.18233	7	0.060	5
56	0.15771	8	0.014	0.16568	8	0.029	0.17393	8	0.045	0.18248	8	0.060	4
57	0.15784	9	0.014	0.16581	10	0.030	0.17407	10	0.045	0.18262	10	0.060	3
58	0.15797	10	0.015	0.16595	11	0.030	0.17421	11	0.045	0.18277	11	0.060	2
59	0.15810	12	0.015	0.16608	13	0.030	0.17435	13	0.045	0.18291	13	0.061	1
60	0.15823		0.015	0.16622		0.030	0.17449		0.046	0.18306		0.061	0
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(314°) 134°			(313°) 133°			(312°) 132°			(311°) 131°			

第 6 表 I　高度及方位角計算表 h 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

,	49° (229°)			50° (230°)			51° (231°)			52° (232°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.18306	15	0.061	0.19193	15	0.076	0.20113	16	0.092	0.21066	16	0.107	60
1	0.18320	2	0.061	0.19208	2	0.076	0.20128	2	0.092	0.21082	2	0.107	59
2	0.18335	3	0.061	0.19223	3	0.077	0.20144	3	0.092	0.21098	3	0.108	58
3	0.18349	5	0.062	0.19238	5	0.077	0.20160	5	0.092	0.21114	5	0.108	57
4	0.18364	6	0.062	0.19254	6	0.077	0.20175	6	0.093	0.21131	6	0.108	56
5	0.18378	8	0.062	0.19269	8	0.077	0.20191	8	0.093	0.21147	8	0.108	55
6	0.18393	9	0.062	0.19284	9	0.078	0.20207	10	0.093	0.21163	10	0.109	54
7	0.18408	11	0.063	0.19299	11	0.078	0.20222	11	0.093	0.21179	11	0.109	53
8	0.18422	12	0.063	0.19314	12	0.078	0.20238	13	0.094	0.21195	13	0.109	52
9	0.18437	14	0.063	0.19329	14	0.078	0.20254	14	0.094	0.21212	14	0.110	51
10	0.18451	15	0.063	0.19344	15	0.079	0.20269	16	0.094	0.21228	16	0.110	50
11	0.18466	2	0.064	0.19359	2	0.079	0.20285	2	0.094	0.21244	2	0.110	49
12	0.18481	3	0.064	0.19375	3	0.079	0.20301	3	0.095	0.21261	3	0.110	48
13	0.18495	5	0.064	0.19390	5	0.080	0.20316	5	0.095	0.21277	5	0.111	47
14	0.18510	6	0.064	0.19405	6	0.080	0.20332	6	0.095	0.21293	6	0.111	46
15	0.18525	8	0.065	0.19420	8	0.080	0.20348	8	0.096	0.21309	8	0.111	45
16	0.18539	9	0.065	0.19435	9	0.080	0.20364	10	0.096	0.21326	10	0.111	44
17	0.18554	11	0.065	0.19450	11	0.081	0.20379	11	0.096	0.21342	11	0.112	43
18	0.18569	12	0.065	0.19466	12	0.081	0.20395	13	0.096	0.21358	13	0.112	42
19	0.18583	14	0.066	0.19481	14	0.081	0.20411	14	0.097	0.21375	14	0.112	41
20	0.18598	15	0.066	0.19496	15	0.081	0.20427	16	0.097	0.21391	16	0.112	40
21	0.18613	2	0.066	0.19511	2	0.082	0.20442	2	0.097	0.21408	2	0.113	39
22	0.18628	3	0.066	0.19527	3	0.082	0.20458	3	0.097	0.21424	3	0.113	38
23	0.18642	5	0.067	0.19542	5	0.082	0.20474	5	0.098	0.21440	5	0.113	37
24	0.18657	6	0.067	0.19557	6	0.082	0.20490	6	0.098	0.21457	6	0.113	36
25	0.18672	8	0.067	0.19572	8	0.083	0.20506	8	0.098	0.21473	8	0.114	35
26	0.18686	9	0.067	0.19588	9	0.083	0.20522	10	0.098	0.21490	10	0.114	34
27	0.18701	11	0.068	0.19603	11	0.083	0.20537	11	0.099	0.21506	11	0.114	33
28	0.18716	12	0.068	0.19618	12	0.083	0.20553	13	0.099	0.21522	13	0.114	32
29	0.18731	14	0.068	0.19634	14	0.084	0.20569	14	0.099	0.21539	14	0.115	31
30	0.18746	15	0.069	0.19649	15	0.084	0.20585	16	0.099	0.21555	17	0.115	30
31	0.18760	2	0.069	0.19664	2	0.084	0.20601	2	0.100	0.21572	2	0.115	29
32	0.18775	3	0.069	0.19680	3	0.084	0.20617	3	0.100	0.21588	3	0.116	28
33	0.18790	5	0.069	0.19695	5	0.085	0.20633	5	0.100	0.21605	5	0.116	27
34	0.18805	6	0.070	0.19710	6	0.085	0.20649	6	0.100	0.21621	7	0.116	26
35	0.18820	8	0.070	0.19726	8	0.085	0.20665	8	0.101	0.21638	9	0.116	25
36	0.18834	9	0.070	0.19741	9	0.085	0.20681	10	0.101	0.21654	10	0.11,	24
37	0.18849	11	0.070	0.19756	11	0.086	0.20696	11	0.101	0.21671	12	0.117	23
38	0.18864	12	0.071	0.19772	12	0.086	0.20712	13	0.101	0.21687	14	0.117	22
39	0.18879	14	0.071	0.19787	14	0.086	0.20728	14	0.102	0.21704	15	0.117	21
40	0.18894	15	0.071	0.19803	15	0.086	0.20744	16	0.102	0.21720	17	0.118	20
41	0.18909	2	0.071	0.19818	2	0.087	0.20760	2	0.102	0.21737	2	0.118	19
42	0.18924	3	0.072	0.19834	3	0.087	0.20776	3	0.103	0.21754	3	0.118	18
43	0.18939	5	0.072	0.19849	5	0.087	0.20792	5	0.103	0.21770	5	0.118	17
44	0.18953	6	0.072	0.19864	6	0.088	0.20808	6	0.103	0.21787	7	0.119	16
45	0.18968	8	0.072	0.19880	8	0.088	0.20824	8	0.103	0.21803	9	0.119	15
46	0.18983	9	0.073	0.19895	9	0.088	0.20840	10	0.104	0.21820	10	0.119	14
47	0.18998	11	0.073	0.19911	11	0.088	0.20856	11	0.104	0.21837	12	0.119	13
48	0.19013	12	0.073	0.19926	12	0.089	0.20872	13	0.104	0.21853	14	0.120	12
49	0.19028	14	0.073	0.19942	14	0.089	0.20889	14	0.104	0.21870	15	0.120	11
50	0.19043	15	0.074	0.19957	16	0.089	0.20905	16	0.105	0.21887	17	0.120	10
51	0.19058	2	0.074	0.19973	2	0.089	0.20921	2	0.105	0.21903	2	0.121	9
52	0.19073	3	0.074	0.19988	3	0.090	0.20937	3	0.105	0.21920	3	0.121	8
53	0.19088	5	0.074	0.20004	5	0.090	0.20953	5	0.105	0.21937	5	0.121	7
54	0.19103	6	0.075	0.20019	6	0.090	0.20969	6	0.106	0.21953	7	0.121	6
55	0.19118	8	0.075	0.20035	8	0.090	0.20985	8	0.106	0.21970	9	0.122	5
56	0.19133	9	0.075	0.20050	10	0.091	0.21001	10	0.106	0.21987	10	0.122	4
57	0.19148	11	0.075	0.20066	11	0.091	0.21017	11	0.106	0.22003	12	0.122	3
58	0.19163	12	0.076	0.20082	13	0.091	0.21033	13	0.107	0.22020	14	0.122	2
59	0.19178	14	0.076	0.20097	14	0.091	0.21050	14	0.107	0.22037	15	0.123	1
60	0.19193		0.076	0.20113		0.092	0.21066		0.107	0.22054		0.123	0
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	,
	(310°) 130°			(309°) 129°			(308°) 128°			(307°) 127°			

第 6 表 I　高度及方位角計算表 h 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

,	53° (233°)			54° (234°)			55° (235°)			56° (236°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.22054	17	0.123	0.23078	17	0.139	0.24141	18	0.155	0.25244	19	0.171	60
1	0.22070	2	0.123	0.23096	2	0.139	0.24159	2	0.155	0.25263	2	0.171	59
2	0.22087	3	0.123	0.23113	3	0.139	0.24177	4	0.155	0.25281	4	0.172	58
3	0.22104	5	0.124	0.23130	5	0.140	0.24195	5	0.156	0.25300	6	0.172	57
4	0.22121	7	0.124	0.23148	7	0.140	0.24213	7	0.156	0.25319	8	0.172	56
5	0.22138	9	0.124	0.23165	9	0.140	0.24231	9	0.156	0.25338	10	0.172	55
6	0.22154	10	0.124	0.23183	10	0.140	0.24249	11	0.156	0.25356	11	0.173	54
7	0.22171	12	0.125	0.23200	12	0.141	0.24267	13	0.157	0.25375	13	0.173	53
8	0.22188	14	0.125	0.23218	14	0.141	0.24286	14	0.157	0.25394	15	0.173	52
9	0.22205	15	0.125	0.23235	15	0.141	0.24304	16	0.157	0.25413	17	0.173	51
10	0.22222	17	0.126	0.23253	18	0.141	0.24322	18	0.157	0.25432	19	0.174	50
11	0.22239	2	0.126	0.23270	2	0.142	0.24340	2	0.158	0.25451	2	0.174	49
12	0.22256	3	0.126	0.23288	4	0.142	0.24358	4	0.158	0.25469	4	0.174	48
13	0.22272	5	0.126	0.23305	5	0.142	0.24376	5	0.158	0.25488	6	0.175	47
14	0.22289	7	0.127	0.23323	7	0.142	0.24395	7	0.159	0.25507	8	0.175	46
15	0.22306	9	0.127	0.23340	9	0.143	0.24413	9	0.159	0.25526	10	0.175	45
16	0.22323	10	0.127	0.23358	11	0.143	0.24431	11	0.159	0.25545	11	0.175	44
17	0.22340	12	0.127	0.23375	13	0.143	0.24449	13	0.159	0.25564	13	0.176	43
18	0.22357	14	0.128	0.23393	14	0.144	0.24467	14	0.160	0.25583	15	0.176	42
19	0.22374	15	0.128	0.23410	16	0.144	0.24486	16	0.160	0.25602	17	0.176	41
20	0.22391	17	0.128	0.23428	18	0.144	0.24504	18	0.160	0.25621	19	0.176	40
21	0.22408	2	0.128	0.23446	2	0.144	0.24522	2	0.160	0.25640	2	0.177	39
22	0.22425	3	0.129	0.23463	4	0.145	0.24541	4	0.161	0.25659	4	0.177	38
23	0.22442	5	0.129	0.23481	5	0.145	0.24559	5	0.161	0.25678	6	0.177	37
24	0.22459	7	0.129	0.23499	7	0.145	0.24577	7	0.161	0.25697	8	0.178	36
25	0.22476	9	0.129	0.23516	9	0.145	0.24595	9	0.162	0.25716	10	0.178	35
26	0.22493	10	0.130	0.23534	11	0.146	0.24614	11	0.162	0.25735	11	0.178	34
27	0.22510	12	0.130	0.23552	13	0.146	0.24632	13	0.162	0.25754	13	0.178	33
28	0.22527	14	0.130	0.23569	14	0.146	0.24650	14	0.162	0.25773	15	0.179	32
29	0.22544	15	0.131	0.23587	16	0.146	0.24669	16	0.163	0.25792	17	0.179	31
30	0.22561	17	0.131	0.23605	18	0.147	0.24687	18	0.163	0.25811	19	0.179	30
31	0.22578	2	0.131	0.23622	2	0.147	0.24706	2	0.163	0.25830	2	0.179	29
32	0.22595	3	0.131	0.23640	4	0.147	0.24724	4	0.163	0.25849	4	0.180	28
33	0.22613	5	0.132	0.23658	5	0.148	0.24742	5	0.164	0.25868	6	0.180	27
34	0.22630	7	0.132	0.23676	7	0.148	0.24761	7	0.164	0.25887	8	0.180	26
35	0.22647	9	0.132	0.23693	9	0.148	0.24779	9	0.164	0.25907	10	0.181	25
36	0.22664	10	0.132	0.23711	11	0.148	0.24798	11	0.164	0.25926	11	0.181	24
37	0.22681	12	0.133	0.23729	13	0.149	0.24816	13	0.165	0.25945	13	0.181	23
38	0.22698	14	0.133	0.23747	14	0.149	0.24835	14	0.165	0.25964	15	0.181	22
39	0.22715	15	0.133	0.23764	16	0.149	0.24853	16	0.165	0.25983	17	0.182	21
40	0.22732	17	0.133	0.23782	18	0.149	0.24872	19	0.166	0.26003	19	0.182	20
41	0.22750	2	0.134	0.23800	2	0.150	0.24890	2	0.166	0.26022	2	0.182	19
42	0.22767	3	0.134	0.23818	4	0.150	0.24909	4	0.166	0.26041	4	0.183	18
43	0.22784	5	0.134	0.23836	5	0.150	0.24927	6	0.166	0.26060	6	0.183	17
44	0.22801	7	0.134	0.23854	7	0.150	0.24946	8	0.167	0.26079	8	0.183	16
45	0.22819	9	0.135	0.23871	9	0.151	0.24964	10	0.167	0.26099	10	0.183	15
46	0.22836	10	0.135	0.23889	11	0.151	0.24983	11	0.167	0.26118	11	0.184	14
47	0.22853	12	0.135	0.23907	13	0.151	0.25001	13	0.167	0.26137	13	0.184	13
48	0.22870	14	0.136	0.23925	14	0.152	0.25020	15	0.168	0.26157	15	0.184	12
49	0.22888	15	0.136	0.23943	16	0.152	0.25039	17	0.168	0.26176	17	0.184	11
50	0.22905	17	0.136	0.23961	18	0.152	0.25057	19	0.168	0.26195	19	0.185	10
51	0.22922	2	0.136	0.23979	2	0.152	0.25076	2	0.169	0.26215	2	0.185	9
52	0.22939	3	0.137	0.23997	4	0.153	0.25094	4	0.169	0.26234	4	0.185	8
53	0.22957	5	0.137	0.24015	5	0.153	0.25113	6	0.169	0.26253	6	0.186	7
54	0.22974	7	0.137	0.24033	7	0.153	0.25132	8	0.169	0.26273	8	0.186	6
55	0.22991	9	0.137	0.24051	9	0.153	0.25150	10	0.170	0.26292	10	0.186	5
56	0.23009	10	0.138	0.24069	11	0.154	0.25169	11	0.170	0.26311	11	0.186	4
57	0.23026	12	0.138	0.24087	13	0.154	0.25188	13	0.170	0.26331	13	0.187	3
58	0.23043	14	0.138	0.24105	14	0.154	0.25206	15	0.170	0.26350	15	0.187	2
59	0.23061	15	0.138	0.24123	16	0.155	0.25225	17	0.171	0.26370	17	0.187	1
60	0.23078		0.139	0.24141		0.155	0.25244		0.171	0.26389		0.187	0
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	,
	(306°) 126°			(305°) 125°			(304°) 124°			(303°) 123°			

第 6 表 I　高度及方位角計算表　*h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	57° (237°)			58° (238°)			59° (239°)			60° (240°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.26389	20	0.187	0.27579	20	0.204	0.28816	21	0.221	0.30103	22	0.239	60
1	0.26409	2	0.188	0.27599	2	0.204	0.28837	2	0.222	0.30125	2	0.239	59
2	0.26428	4	0.188	0.27619	4	0.205	0.28858	4	0.222	0.30147	4	0.239	58
3	0.26448	6	0.188	0.27640	6	0.205	0.28879	6	0.222	0.30169	7	0.239	57
4	0.26467	8	0.189	0.27660	8	0.205	0.28900	8	0.222	0.30191	9	0.240	56
5	0.26487	10	0.189	0.27680	10	0.206	0.28921	11	0.223	0.30213	11	0.240	55
6	0.26506	12	0.189	0.27701	12	0.206	0.28942	13	0.223	0.30235	13	0.240	54
7	0.26526	14	0.189	0.27721	14	0.206	0.28964	15	0.223	0.30257	15	0.241	53
8	0.26545	16	0.190	0.27741	16	0.206	0.28985	17	0.224	0.30279	18	0.241	52
9	0.26565	18	0.190	0.27762	18	0.207	0.29006	19	0.224	0.30301	20	0.241	51
10	0.26584	20	0.190	0.27782	20	0.207	0.29027	21	0.224	0.30323	22	0.241	50
11	0.26604	2	0.191	0.27802	2	0.207	0.29048	2	0.224	0.30345	2	0.242	49
12	0.26623	4	0.191	0.27823	4	0.208	0.29069	4	0.225	0.30367	4	0.242	48
13	0.26643	6	0.191	0.27843	6	0.208	0.29091	6	0.225	0.30389	7	0.242	47
14	0.26663	8	0.191	0.27863	8	0.208	0.29112	8	0.225	0.30411	9	0.243	46
15	0.26682	10	0.192	0.27884	10	0.208	0.29133	11	0.226	0.30433	11	0.243	45
16	0.26702	12	0.192	0.27904	12	0.209	0.29154	13	0.226	0.30455	13	0.243	44
17	0.26722	14	0.192	0.27925	14	0.209	0.29176	15	0.226	0.30477	15	0.244	43
18	0.26741	16	0.192	0.27945	16	0.209	0.29197	17	0.226	0.30499	18	0.244	42
19	0.26761	18	0.193	0.27966	18	0.210	0.29218	19	0.227	0.30521	20	0.244	41
20	0.26781	20	0.193	0.27986	21	0.210	0.29239	21	0.227	0.30544	22	0.244	40
21	0.26800	2	0.193	0.28006	2	0.210	0.29261	2	0.227	0.30566	2	0.245	39
22	0.26820	4	0.194	0.28027	4	0.210	0.29282	4	0.228	0.30588	4	0.245	38
23	0.26840	6	0.194	0.28048	6	0.211	0.29303	6	0.228	0.30610	7	0.245	37
24	0.26860	8	0.194	0.28068	8	0.211	0.29325	8	0.228	0.30632	9	0.246	36
25	0.26879	10	0.194	0.28089	11	0.211	0.29346	11	0.228	0.30655	11	0.246	35
26	0.26899	12	0.195	0.28109	13	0.212	0.29367	13	0.229	0.30677	13	0.246	34
27	0.26919	14	0.195	0.28130	15	0.212	0.29389	15	0.229	0.30699	15	0.246	33
28	0.26939	16	0.195	0.28150	17	0.212	0.29410	17	0.229	0.30721	18	0.247	32
29	0.26959	18	0.196	0.28171	19	0.212	0.29432	19	0.230	0.30744	20	0.247	31
30	0.26978	20	0.196	0.28191	21	0.213	0.29453	22	0.230	0.30766	22	0.247	30
31	0.26998	2	0.196	0.28212	2	0.213	0.29475	2	0.230	0.30788	2	0.248	29
32	0.27018	4	0.196	0.28233	4	0.213	0.29496	4	0.230	0.30811	4	0.248	28
33	0.27038	6	0.197	0.28253	6	0.214	0.29518	7	0.231	0.30833	7	0.248	27
34	0.27058	8	0.197	0.28274	8	0.214	0.29539	9	0.231	0.30856	9	0.249	26
35	0.27078	10	0.197	0.28295	11	0.214	0.29561	11	0.231	0.30878	11	0.249	25
36	0.27098	12	0.197	0.28315	13	0.214	0.29582	13	0.232	0.30900	13	0.249	24
37	0.27117	14	0.198	0.28336	15	0.215	0.29604	15	0.232	0.30923	15	0.249	23
38	0.27137	16	0.198	0.28357	17	0.215	0.29625	18	0.232	0.30945	18	0.250	22
39	0.27157	18	0.198	0.28378	19	0.215	0.29647	20	0.232	0.30968	20	0.250	21
40	0.27177	20	0.199	0.28398	21	0.216	0.29668	22	0.233	0.30990	23	0.250	20
41	0.27197	2	0.199	0.28419	2	0.216	0.29690	2	0.233	0.31013	2	0.251	19
42	0.27217	4	0.199	0.28440	4	0.216	0.29712	4	0.233	0.31035	5	0.251	18
43	0.27237	6	0.199	0.28461	6	0.216	0.29733	7	0.234	0.31058	7	0.251	17
44	0.27257	8	0.200	0.28481	8	0.217	0.29755	9	0.234	0.31080	9	0.251	16
45	0.27277	10	0.200	0.28502	11	0.217	0.29776	11	0.234	0.31103	12	0.252	15
46	0.27297	12	0.200	0.28523	13	0.217	0.29798	13	0.234	0.31125	14	0.252	14
47	0.27317	14	0.201	0.28544	15	0.218	0.29820	15	0.235	0.31148	16	0.252	13
48	0.27337	16	0.201	0.28565	17	0.218	0.29841	18	0.235	0.31171	18	0.253	12
49	0.27357	18	0.201	0.28586	19	0.218	0.29863	20	0.235	0.31193	21	0.253	11
50	0.27378	20	0.201	0.28607	21	0.218	0.29885	22	0.236	0.31216	23	0.253	10
51	0.27398	2	0.202	0.28627	2	0.219	0.29907	2	0.236	0.31238	2	0.254	9
52	0.27418	4	0.202	0.28648	4	0.219	0.29928	4	0.236	0.31261	5	0.254	8
53	0.27438	6	0.202	0.28669	6	0.219	0.29950	7	0.237	0.31284	7	0.254	7
54	0.27458	8	0.203	0.28690	8	0.220	0.29972	9	0.237	0.31306	9	0.254	6
55	0.27478	10	0.203	0.28711	11	0.220	0.29994	11	0.237	0.31329	12	0.255	5
56	0.27498	12	0.203	0.28732	13	0.220	0.30016	13	0.237	0.31352	14	0.255	4
57	0.27518	14	0.203	0.28753	15	0.220	0.30037	15	0.238	0.31375	16	0.255	3
58	0.27539	16	0.204	0.28774	17	0.221	0.30059	18	0.238	0.31397	18	0.256	2
59	0.27559	18	0.204	0.28795	19	0.221	0.30081	20	0.238	0.31420	21	0.256	1
60	0.27579		0.204	0.28816		0.221	0.30103		0.239	0.31443		0.256	0
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(302°) 122°			(301°) 121°			(300°) 120°			(299°) 119°			

第 6 表 I　高度及方位角計算表　*h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	61° (241°)			62° (242°)			63° (243°)			64° (244°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.31443	23	0.256	0.32839	24	0.274	0.34295	25	0.293	0.35816	26	0.312	60
1	0.31466	2	0.257	0.32863	2	0.275	0.34320	3	0.293	0.35842	3	0.312	59
2	0.31488	5	0.257	0.32887	5	0.275	0.34345	5	0.293	0.35868	5	0.312	58
3	0.31511	7	0.257	0.32910	7	0.275	0.34370	8	0.294	0.35894	8	0.313	57
4	0.31534	9	0.257	0.32934	10	0.276	0.34395	10	0.294	0.35920	10	0.313	56
5	0.31557	12	0.258	0.32958	12	0.276	0.34420	13	0.294	0.35946	13	0.313	55
6	0.31580	14	0.258	0.32982	14	0.276	0.34444	15	0.295	0.35972	16	0.314	54
7	0.31603	16	0.258	0.33006	17	0.276	0.34469	18	0.295	0.35998	18	0.314	53
8	0.31626	18	0.259	0.33030	19	0.277	0.34494	20	0.295	0.36024	21	0.314	52
9	0.31649	21	0.259	0.33054	22	0.277	0.34519	23	0.296	0.36050	23	0.315	51
10	0.31672	23	0.259	0.33078	24	0.277	0.34544	25	0.296	0.36076	26	0.315	50
11	0.31695	2	0.260	0.33101	2	0.278	0.34569	3	0.296	0.36102	3	0.315	49
12	0.31717	5	0.260	0.33125	5	0.278	0.34594	5	0.297	0.36128	5	0.316	48
13	0.31740	7	0.260	0.33149	7	0.278	0.34619	8	0.297	0.36154	8	0.316	47
14	0.31763	9	0.260	0.33173	10	0.279	0.34644	10	0.297	0.36180	10	0.316	46
15	0.31787	12	0.261	0.33197	12	0.279	0.34669	13	0.298	0.36206	13	0.317	45
16	0.31810	14	0.261	0.33221	14	0.279	0.34694	15	0.298	0.36233	16	0.317	44
17	0.31833	16	0.261	0.33245	17	0.280	0.34719	18	0.298	0.36259	18	0.317	43
18	0.31856	18	0.262	0.33269	19	0.280	0.34745	20	0.298	0.36285	21	0.318	42
19	0.31879	21	0.262	0.33294	22	0.280	0.34770	23	0.299	0.36311	23	0.318	41
20	0.31902	23	0.262	0.33318	24	0.280	0.34795	25	0.299	0.36338	26	0.318	40
21	0.31925	2	0.263	0.33342	2	0.281	0.34820	3	0.299	0.36364	3	0.319	39
22	0.31948	5	0.263	0.33366	5	0.281	0.34845	5	0.300	0.36390	5	0.319	38
23	0.31971	7	0.263	0.33390	7	0.281	0.34870	8	0.300	0.36417	8	0.319	37
24	0.31994	9	0.263	0.33414	10	0.282	0.34896	10	0.300	0.36443	10	0.320	36
25	0.32018	12	0.264	0.33438	12	0.282	0.34921	13	0.301	0.36469	13	0.320	35
26	0.32041	14	0.264	0.33463	14	0.282	0.34946	15	0.301	0.36496	16	0.320	34
27	0.32064	16	0.264	0.33487	17	0.283	0.34971	18	0.301	0.36522	18	0.321	33
28	0.32087	18	0.265	0.33511	19	0.283	0.34997	20	0.302	0.36549	21	0.321	32
29	0.32110	21	0.265	0.33535	22	0.283	0.35022	23	0.302	0.36575	23	0.321	31
30	0.32134	23	0.265	0.33559	24	0.284	0.35047	25	0.302	0.36602	27	0.322	30
31	0.32157	2	0.266	0.33584	2	0.284	0.35073	3	0.303	0.36628	3	0.322	29
32	0.32180	5	0.266	0.33608	5	0.284	0.35098	5	0.303	0.36655	5	0.322	28
33	0.32204	7	0.266	0.33632	7	0.284	0.35123	8	0.303	0.36681	8	0.322	27
34	0.32227	9	0.266	0.33657	10	0.285	0.35149	10	0.304	0.36708	11	0.323	26
35	0.32250	12	0.267	0.33681	12	0.285	0.35174	13	0.304	0.36734	14	0.323	25
36	0.32274	14	0.267	0.33705	14	0.285	0.35200	15	0.304	0.36761	16	0.323	24
37	0.32297	16	0.267	0.33730	17	0.286	0.35225	18	0.304	0.36787	19	0.324	23
38	0.32320	18	0.268	0.33754	19	0.286	0.35251	20	0.305	0.36814	22	0.324	22
39	0.32344	21	0.268	0.33779	22	0.286	0.35276	23	0.305	0.36841	24	0.324	21
40	0.32367	24	0.268	0.33803	25	0.287	0.35302	26	0.305	0.36867	27	0.325	20
41	0.32391	2	0.269	0.33827	3	0.287	0.35327	3	0.306	0.36894	3	0.325	19
42	0.32414	5	0.269	0.33852	5	0.287	0.35353	5	0.306	0.36921	5	0.325	18
43	0.32438	7	0.269	0.33876	8	0.288	0.35378	8	0.306	0.36948	8	0.326	17
44	0.32461	10	0.269	0.33901	10	0.288	0.35404	10	0.307	0.36974	11	0.326	16
45	0.32485	12	0.270	0.33925	13	0.288	0.35429	13	0.307	0.37001	14	0.326	15
46	0.32508	14	0.270	0.33950	15	0.288	0.35455	16	0.307	0.37028	16	0.327	14
47	0.32532	17	0.270	0.33975	18	0.289	0.35481	18	0.308	0.37055	19	0.327	13
48	0.32555	19	0.271	0.33999	20	0.289	0.35506	21	0.308	0.37082	22	0.327	12
49	0.32579	22	0.271	0.34024	23	0.289	0.35532	23	0.308	0.37108	24	0.328	11
50	0.32602	24	0.271	0.34048	25	0.290	0.35558	26	0.309	0.37135	27	0.328	10
51	0.32626	2	0.272	0.34073	3	0.290	0.35583	3	0.309	0.37162	3	0.328	9
52	0.32650	5	0.272	0.34098	5	0.290	0.35609	5	0.309	0.37189	5	0.329	8
53	0.32673	7	0.272	0.34122	8	0.291	0.35635	8	0.310	0.37216	8	0.329	7
54	0.32697	10	0.272	0.34147	10	0.291	0.35661	10	0.310	0.37243	11	0.329	6
55	0.32720	12	0.273	0.34172	13	0.291	0.35687	13	0.310	0.37270	14	0.330	5
56	0.32744	14	0.273	0.34196	15	0.292	0.35712	16	0.311	0.37297	16	0.330	4
57	0.32768	17	0.273	0.34221	18	0.292	0.35738	18	0.311	0.37324	19	0.330	3
58	0.32792	19	0.274	0.34246	20	0.292	0.35764	21	0.311	0.37351	22	0.331	2
59	0.32815	22	0.274	0.34271	23	0.293	0.35790	23	0.311	0.37378	24	0.331	1
60	0.32839		0.274	0.34295		0.293	0.35816		0.312	0.37405		0.331	0
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(298°) 118°			(297°) 117°			(296°) 116°			(295°) 115°			

第 6 表 I　高度及方位角計算表　*h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	65° (245°)			66° (246°)			67° (247°)			68° (248°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.37405	27	0.331	0.39069	28	0.351	0.40812	30	0.372	0.42642	31	0.394	60
1	0.37432	3	0.332	0.39097	3	0.352	0.40842	3	0.372	0.42674	3	0.394	59
2	0.37459	5	0.332	0.39125	6	0.352	0.40872	6	0.373	0.42705	6	0.394	58
3	0.37487	8	0.332	0.39154	8	0.352	0.40902	9	0.373	0.42736	9	0.395	57
4	0.37514	11	0.333	0.39182	11	0.353	0.40931	12	0.374	0.42768	12	0.395	56
5	0.37541	14	0.333	0.39211	14	0.353	0.40961	15	0.374	0.42799	16	0.395	55
6	0.37568	16	0.333	0.39239	17	0.353	0.40991	18	0.374	0.42831	19	0.396	54
7	0.37595	19	0.334	0.39268	20	0.354	0.41021	21	0.375	0.42862	22	0.396	53
8	0.37623	22	0.334	0.39296	22	0.354	0.41051	24	0.375	0.42893	25	0.397	52
9	0.37650	24	0.334	0.39325	25	0.354	0.41081	27	0.375	0.42925	28	0.397	51
10	0.37677	27	0.335	0.39354	29	0.355	0.41111	30	0.376	0.42956	32	0.397	50
11	0.37704	3	0.335	0.39382	3	0.355	0.41141	3	0.376	0.42988	3	0.398	49
12	0.37732	5	0.335	0.39411	6	0.356	0.41171	6	0.376	0.43020	6	0.398	48
13	0.37759	8	0.336	0.39439	9	0.356	0.41201	9	0.377	0.43051	10	0.398	47
14	0.37786	11	0.336	0.39468	12	0.356	0.41231	12	0.377	0.43083	13	0.399	46
15	0.37814	14	0.336	0.39497	15	0.357	0.41261	15	0.377	0.43114	16	0.399	45
16	0.37841	16	0.337	0.39526	17	0.357	0.41291	18	0.378	0.43146	19	0.399	44
17	0.37869	19	0.337	0.39554	20	0.357	0.41322	21	0.378	0.43178	22	0.400	43
18	0.37896	22	0.337	0.39583	23	0.358	0.41352	24	0.379	0.43210	26	0.400	42
19	0.37924	24	0.338	0.39612	26	0.358	0.41382	27	0.379	0.43241	29	0.401	41
20	0.37951	28	0.338	0.39641	29	0.358	0.41412	30	0.379	0.43273	32	0.401	40
21	0.37979	3	0.338	0.39669	3	0.359	0.41443	3	0.380	0.43305	3	0.401	39
22	0.38006	6	0.339	0.39698	6	0.359	0.41473	6	0.380	0.43337	6	0.402	38
23	0.38034	8	0.339	0.39727	9	0.359	0.41503	9	0.380	0.43369	10	0.402	37
24	0.38061	11	0.339	0.39756	12	0.360	0.41533	12	0.381	0.43401	13	0.402	36
25	0.38089	14	0.340	0.39785	15	0.360	0.41564	15	0.381	0.43432	16	0.403	35
26	0.38117	17	0.340	0.39814	17	0.360	0.41594	18	0.381	0.43464	19	0.403	34
27	0.38144	20	0.340	0.39843	20	0.361	0.41625	21	0.382	0.43496	22	0.403	33
28	0.38172	22	0.341	0.39872	23	0.361	0.41655	24	0.382	0.43528	26	0.404	32
29	0.38200	25	0.341	0.39901	26	0.361	0.41686	27	0.382	0.43560	29	0.404	31
30	0.38227	28	0.341	0.39930	29	0.362	0.41716	31	0.383	0.43592	32	0.405	30
31	0.38255	3	0.342	0.39959	3	0.362	0.41747	3	0.383	0.43625	3	0.405	29
32	0.38283	6	0.342	0.39988	6	0.362	0.41777	6	0.383	0.43657	6	0.405	28
33	0.38311	8	0.342	0.40017	9	0.363	0.41808	9	0.384	0.43689	10	0.406	27
34	0.38338	11	0.343	0.40046	12	0.363	0.41838	12	0.384	0.43721	13	0.406	26
35	0.38366	14	0.343	0.40076	15	0.363	0.41869	16	0.385	0.43753	16	0.406	25
36	0.38394	17	0.343	0.40105	17	0.364	0.41899	19	0.385	0.43785	19	0.407	24
37	0.38422	20	0.344	0.40134	20	0.364	0.41930	22	0.385	0.43818	22	0.407	23
38	0.38450	22	0.344	0.40163	23	0.364	0.41961	25	0.386	0.43850	26	0.408	22
39	0.38478	25	0.344	0.40192	26	0.365	0.41992	28	0.386	0.43882	29	0.408	21
40	0.38506	28	0.345	0.40222	29	0.365	0.42022	31	0.386	0.43915	32	0.408	20
41	0.38534	3	0.345	0.40251	3	0.366	0.42053	3	0.387	0.43947	3	0.409	19
42	0.38562	6	0.345	0.40280	6	0.366	0.42084	6	0.387	0.43979	6	0.409	18
43	0.38589	8	0.346	0.40310	9	0.366	0.42115	9	0.387	0.44012	10	0.409	17
44	0.38618	11	0.346	0.40339	12	0.367	0.42145	12	0.388	0.44044	13	0.410	16
45	0.38646	14	0.346	0.40368	15	0.367	0.42176	16	0.388	0.44077	16	0.410	15
46	0.38674	17	0.347	0.40398	17	0.367	0.42207	19	0.389	0.44109	19	0.411	14
47	0.38702	20	0.347	0.40427	20	0.368	0.42238	22	0.389	0.44142	22	0.411	13
48	0.38730	22	0.347	0.40457	23	0.368	0.42269	25	0.389	0.44174	26	0.411	12
49	0.38758	25	0.348	0.40486	26	0.368	0.42300	28	0.390	0.44207	29	0.412	11
50	0.38786	28	0.348	0.40516	30	0.369	0.42331	31	0.390	0.44239	33	0.412	10
51	0.38814	3	0.348	0.40545	3	0.369	0.42362	3	0.390	0.44272	3	0.412	9
52	0.38842	6	0.349	0.40575	6	0.369	0.42393	6	0.391	0.44305	7	0.413	8
53	0.38871	8	0.349	0.40604	9	0.370	0.42424	9	0.391	0.44337	10	0.413	7
54	0.38899	11	0.349	0.40634	12	0.370	0.42455	12	0.391	0.44370	13	0.414	6
55	0.38927	14	0.350	0.40664	15	0.370	0.42486	16	0.392	0.44403	17	0.414	5
56	0.38955	17	0.350	0.40693	18	0.371	0.42518	19	0.392	0.44436	20	0.414	4
57	0.38984	20	0.350	0.40723	21	0.371	0.42549	22	0.393	0.44468	23	0.415	3
58	0.39012	22	0.351	0.40753	24	0.371	0.42580	25	0.393	0.44501	26	0.415	2
59	0.39040	25	0.351	0.40782	27	0.372	0.42611	28	0.393	0.44534	30	0.415	1
60	0.39069		0.351	0.40812		0.372	0.42642		0.394	0.44567		0.416	0
′	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(294°) 114°			(293°) 113°			(292°) 112°			(291°) 111°			

第 6 表 I　高度及方位角計算表　*h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	69° (249°)			70° (250°)			71° (251°)			72° (252°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.44567	33	0.416	0.46595	35	0.439	0.48736	37	0.463	0.51002	39	0.488	60
1	0.44600	3	0.416	0.46630	4	0.439	0.48773	4	0.463	0.51041	4	0.489	59
2	0.44633	7	0.417	0.46664	7	0.440	0.48809	7	0.464	0.51080	8	0.489	58
3	0.44666	10	0.417	0.46699	11	0.440	0.48846	11	0.464	0.51119	12	0.490	57
4	0.44699	13	0.417	0.46734	14	0.441	0.48883	15	0.465	0.51158	16	0.490	56
5	0.44732	17	0.418	0.46769	18	0.441	0.48920	19	0.465	0.51197	20	0.490	55
6	0.44765	20	0.418	0.46804	21	0.441	0.48957	22	0.466	0.51236	23	0.491	54
7	0.44798	23	0.418	0.46839	25	0.442	0.48993	26	0.466	0.51275	27	0.491	53
8	0.44831	26	0.419	0.46874	28	0.442	0.49030	30	0.466	0.51314	31	0.492	52
9	0.44864	30	0.419	0.46908	32	0.442	0.49067	33	0.467	0.51353	35	0.492	51
10	0.44898	33	0.420	0.46944	35	0.443	0.49104	37	0.467	0.51393	39	0.493	50
11	0.44931	3	0.420	0.46979	4	0.443	0.49142	4	0.468	0.51432	4	0.493	49
12	0.44964	7	0.420	0.47014	7	0.444	0.49179	7	0.468	0.51471	8	0.493	48
13	0.44997	10	0.421	0.47049	11	0.444	0.49216	11	0.468	0.51510	12	0.494	47
14	0.45031	13	0.421	0.47084	14	0.444	0.49253	15	0.469	0.51550	16	0.494	46
15	0.45064	17	0.422	0.47119	18	0.445	0.49290	19	0.469	0.51589	20	0.495	45
16	0.45097	20	0.422	0.47154	21	0.445	0.49327	22	0.470	0.51629	23	0.495	44
17	0.45131	23	0.422	0.47189	25	0.446	0.49365	26	0.470	0.51668	27	0.496	43
18	0.45164	26	0.423	0.47225	28	0.446	0.49402	30	0.470	0.51708	31	0.496	42
19	0.45198	30	0.423	0.47260	32	0.446	0.49439	33	0.471	0.51748	35	0.496	41
20	0.45231	34	0.423	0.47295	36	0.447	0.49477	38	0.471	0.51787	40	0.497	40
21	0.45265	3	0.424	0.47331	4	0.447	0.49514	4	0.472	0.51827	4	0.497	39
22	0.45298	7	0.424	0.47366	7	0.448	0.49551	8	0.472	0.51867	8	0.498	38
23	0.45332	10	0.425	0.47402	11	0.448	0.49589	11	0.473	0.51906	12	0.498	37
24	0.45365	14	0.425	0.47437	14	0.448	0.49626	15	0.473	0.51946	16	0.499	36
25	0.45399	17	0.425	0.47473	18	0.449	0.49664	19	0.473	0.51986	20	0.499	35
26	0.45433	20	0.426	0.47508	22	0.449	0.49702	23	0.474	0.52026	24	0.500	34
27	0.45466	24	0.426	0.47544	25	0.450	0.49739	27	0.474	0.52066	28	0.500	33
28	0.45500	27	0.426	0.47579	29	0.450	0.49777	30	0.475	0.52106	32	0.500	32
29	0.45534	31	0.427	0.47615	32	0.450	0.49815	34	0.475	0.52146	36	0.501	31
30	0.45567	34	0.427	0.47650	36	0.451	0.49852	38	0.475	0.52186	40	0.501	30
31	0.45601	3	0.428	0.47686	4	0.451	0.49890	4	0.476	0.52226	4	0.502	29
32	0.45635	7	0.428	0.47722	7	0.452	0.49928	8	0.476	0.52266	8	0.502	28
33	0.45669	10	0.428	0.47758	11	0.452	0.49966	11	0.477	0.52306	12	0.503	27
34	0.45703	14	0.429	0.47793	14	0.452	0.50004	15	0.477	0.52346	16	0.503	26
35	0.45737	17	0.429	0.47829	18	0.453	0.50042	19	0.478	0.52387	20	0.503	25
36	0.45771	20	0.430	0.47865	22	0.453	0.50080	23	0.478	0.52427	24	0.504	24
37	0.45805	24	0.430	0.47901	25	0.454	0.50118	27	0.478	0.52467	28	0.504	23
38	0.45839	27	0.430	0.47937	29	0.454	0.50156	30	0.479	0.52508	32	0.505	22
39	0.45873	31	0.431	0.47973	32	0.454	0.50194	34	0.479	0.52548	36	0.505	21
40	0.45907	34	0.431	0.48009	36	0.455	0.50232	38	0.480	0.52589	41	0.506	20
41	0.45941	3	0.432	0.48045	4	0.455	0.50270	4	0.480	0.52629	4	0.506	19
42	0.45975	7	0.432	0.48081	7	0.456	0.50308	8	0.481	0.52670	8	0.507	18
43	0.46009	10	0.432	0.48117	11	0.456	0.50346	11	0.481	0.52710	12	0.507	17
44	0.46043	14	0.433	0.48153	14	0.457	0.50385	15	0.481	0.52751	16	0.507	16
45	0.46078	17	0.433	0.48189	18	0.457	0.50423	19	0.482	0.52791	21	0.508	15
46	0.46112	20	0.433	0.48226	22	0.457	0.50461	23	0.482	0.52832	25	0.508	14
47	0.46146	24	0.434	0.48262	25	0.458	0.50500	27	0.483	0.52873	29	0.509	13
48	0.46181	27	0.434	0.48298	29	0.458	0.50538	30	0.483	0.52914	33	0.509	12
49	0.46215	31	0.435	0.48334	32	0.459	0.50576	34	0.484	0.52955	37	0.510	11
50	0.46249	35	0.435	0.48371	37	0.459	0.50615	39	0.484	0.52995	41	0.510	10
51	0.46284	4	0.435	0.48407	4	0.459	0.50653	4	0.484	0.53036	4	0.511	9
52	0.46318	7	0.436	0.48443	7	0.460	0.50692	8	0.485	0.53077	8	0.511	8
53	0.46353	11	0.436	0.48480	11	0.460	0.50731	12	0.485	0.53118	12	0.512	7
54	0.46387	14	0.437	0.48516	15	0.461	0.50769	16	0.486	0.53159	16	0.512	6
55	0.46422	18	0.437	0.48553	19	0.461	0.50808	20	0.486	0.53200	21	0.512	5
56	0.46456	21	0.437	0.48589	22	0.461	0.50847	23	0.487	0.53242	25	0.513	4
57	0.46491	25	0.438	0.48626	26	0.462	0.50885	27	0.487	0.53283	29	0.513	3
58	0.46525	28	0.438	0.48662	30	0.462	0.50924	31	0.487	0.53324	33	0.514	2
59	0.46560	32	0.439	0.48699	33	0.463	0.50963	35	0.488	0.53365	37	0.514	1
60	0.46595		0.439	0.48736		0.463	0.51002		0.488	0.53406		0.515	0
′	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(290°) 110°			(289°) 109°			(288°) 108°			(287°) 107°			

第 6 表 I　高度及方位角計算表 *h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	73° (253°)			74° (254°)			75° (255°)			76° (256°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.53406	**42**	0.515	0.55966	**44**	0.543	0.58700	**47**	0.572	0.61632	**51**	0.603	60
1	0.53448	4	0.515	0.56010	4	0.543	0.58748	5	0.572	0.61683	5	0.604	59
2	0.53489	8	0.516	0.56054	9	0.543	0.58795	9	0.573	0.61734	10	0.604	58
3	0.53531	13	0.516	0.56099	13	0.544	0.58842	14	0.573	0.61785	15	0.605	57
4	0.53572	17	0.516	0.56143	18	0.544	0.58889	19	0.574	0.61836	20	0.605	56
5	0.53614	21	0.517	0.56187	22	0.545	0.58937	24	0.574	0.61887	26	0.606	55
6	0.53655	25	0.517	0.56231	26	0.545	0.58984	28	0.575	0.61938	31	0.606	54
7	0.53697	29	0.518	0.56276	31	0.546	0.59032	33	0.575	0.61989	36	0.607	53
8	0.53738	34	0.518	0.56320	35	0.546	0.59079	38	0.576	0.62040	41	0.608	52
9	0.53780	38	0.519	0.56365	40	0.547	0.59127	42	0.577	0.62091	46	0.608	51
10	0.53822	**42**	0.519	0.56409	**45**	0.547	0.59175	**48**	0.577	0.62142	**52**	0.609	50
11	0.53864	4	0.520	0.56454	5	0.548	0.59222	5	0.578	0.62194	5	0.609	49
12	0.53905	8	0.520	0.56498	9	0.548	0.59270	10	0.578	0.62245	10	0.610	48
13	0.53947	13	0.521	0.56543	14	0.549	0.59318	14	0.579	0.62297	16	0.610	47
14	0.53989	17	0.521	0.56588	18	0.549	0.59366	19	0.579	0.62348	21	0.611	46
15	0.54031	21	0.521	0.56633	23	0.550	0.59414	24	0.580	0.62400	26	0.611	45
16	0.54073	25	0.522	0.56677	27	0.550	0.59462	29	0.580	0.62451	31	0.612	44
17	0.54115	29	0.522	0.56722	32	0.551	0.59510	34	0.581	0.62503	36	0.612	43
18	0.54157	34	0.523	0.56767	36	0.551	0.59558	38	0.581	0.62555	42	0.613	42
19	0.54199	38	0.523	0.56812	41	0.552	0.59606	43	0.582	0.62607	47	0.614	41
20	0.54242	**42**	0.524	0.56857	**45**	0.552	0.59654	**49**	0.582	0.62659	**52**	0.614	40
21	0.54284	4	0.524	0.56902	5	0.553	0.59703	5	0.583	0.62711	5	0.615	39
22	0.54326	8	0.525	0.56947	9	0.553	0.59751	10	0.583	0.62763	10	0.615	38
23	0.54368	13	0.525	0.56992	14	0.554	0.59800	15	0.584	0.62815	16	0.616	37
24	0.54411	17	0.526	0.57038	18	0.554	0.59848	20	0.584	0.62867	21	0.616	36
25	0.54453	21	0.526	0.57083	23	0.555	0.59897	25	0.585	0.62919	26	0.617	35
26	0.54496	25	0.527	0.57128	27	0.555	0.59945	29	0.585	0.62972	31	0.617	34
27	0.54538	29	0.527	0.57174	32	0.556	0.59994	34	0.586	0.63024	36	0.618	33
28	0.54581	34	0.527	0.57219	36	0.556	0.60042	39	0.586	0.63076	42	0.619	32
29	0.54623	38	0.528	0.57265	41	0.557	0.60091	44	0.587	0.63129	47	0.619	31
30	0.54666	**43**	0.528	0.57310	**46**	0.557	0.60140	**49**	0.587	0.63181	**53**	0.620	30
31	0.54708	4	0.529	0.57356	5	0.558	0.60189	5	0.588	0.63234	5	0.620	29
32	0.54751	9	0.529	0.57401	9	0.558	0.60238	10	0.588	0.63287	11	0.621	28
33	0.54794	13	0.530	0.57447	14	0.558	0.60287	15	0.589	0.63340	16	0.621	27
34	0.54837	17	0.530	0.57493	18	0.559	0.60336	20	0.589	0.63392	21	0.622	26
35	0.54880	22	0.531	0.57539	23	0.559	0.60385	25	0.590	0.63445	27	0.622	25
36	0.54923	26	0.531	0.57584	28	0.560	0.60434	29	0.590	0.63498	32	0.623	24
37	0.54965	30	0.532	0.57630	32	0.560	0.60483	34	0.591	0.63551	37	0.624	23
38	0.55008	34	0.532	0.57676	37	0.561	0.60533	39	0.592	0.63605	42	0.624	22
39	0.55052	39	0.533	0.57722	41	0.561	0.60582	44	0.592	0.63658	48	0.625	21
40	0.55095	**43**	0.533	0.57768	**46**	0.562	0.60631	**50**	0.593	0.63711	**54**	0.625	20
41	0.55138	4	0.534	0.57814	5	0.562	0.60681	5	0.593	0.63764	5	0.626	19
42	0.55181	9	0.534	0.57860	9	0.563	0.60730	10	0.594	0.63818	11	0.626	18
43	0.55224	13	0.534	0.57907	14	0.563	0.60780	15	0.594	0.63871	16	0.627	17
44	0.55267	17	0.535	0.57953	18	0.564	0.60830	20	0.595	0.63925	22	0.628	16
45	0.55311	22	0.535	0.57999	23	0.564	0.60879	25	0.595	0.63978	27	0.628	15
46	0.55354	26	0.536	0.58046	28	0.565	0.60929	30	0.596	0.64032	32	0.629	14
47	0.55398	30	0.536	0.58092	32	0.565	0.60979	35	0.596	0.64086	38	0.629	13
48	0.55441	34	0.537	0.58139	37	0.566	0.61029	40	0.597	0.64140	43	0.630	12
49	0.55484	39	0.537	0.58185	41	0.566	0.61079	45	0.597	0.64194	49	0.630	11
50	0.55528	**44**	0.538	0.58232	**47**	0.567	0.61129	**50**	0.598	0.64248	**54**	0.631	10
51	0.55572	4	0.538	0.58278	5	0.567	0.61179	5	0.598	0.64302	5	0.631	9
52	0.55615	9	0.539	0.58325	9	0.568	0.61229	10	0.599	0.64356	11	0.632	8
53	0.55659	13	0.539	0.58372	14	0.568	0.61279	15	0.599	0.64410	16	0.633	7
54	0.55703	18	0.540	0.58418	19	0.569	0.61330	20	0.600	0.64464	22	0.633	6
55	0.55747	22	0.540	0.58465	24	0.569	0.61380	25	0.601	0.64519	27	0.634	5
56	0.55790	26	0.541	0.58512	28	0.570	0.61430	30	0.601	0.64573	32	0.634	4
57	0.55834	31	0.541	0.58559	33	0.570	0.61481	35	0.602	0.64627	38	0.635	3
58	0.55878	35	0.542	0.58606	38	0.571	0.61531	40	0.602	0.64682	43	0.635	2
59	0.55922	40	0.542	0.58653	42	0.571	0.61582	45	0.603	0.64737	49	0.636	1
60	0.55966		0.543	0.58700		0.572	0.61632		0.603	0.64791		0.637	0
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(286°) 106°			(285°) 105°			(284°) 104°			(283°) 103°			

第 6 表 I　高度及方位角計算表 *h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	77° (257°)			78° (258°)			79° (259°)			80° (260°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.64791	**55**	0.637	0.68212	**60**	0.673	0.71940	**66**	0.711	0.76033	**72**	0.754	60
1	0.64846	6	0.637	0.68272	6	0.673	0.72005	7	0.712	0.76105	7	0.754	59
2	0.64901	11	0.638	0.68331	12	0.674	0.72070	13	0.713	0.76177	14	0.755	58
3	0.64956	17	0.638	0.68391	18	0.674	0.72136	20	0.713	0.76248	22	0.756	57
4	0.65011	22	0.639	0.68451	24	0.675	0.72201	26	0.714	0.76321	29	0.757	56
5	0.65066	28	0.640	0.68510	30	0.676	0.72266	33	0.715	0.76393	36	0.757	55
6	0.65121	33	0.640	0.68570	36	0.676	0.72332	40	0.715	0.76465	43	0.758	54
7	0.65176	39	0.641	0.68630	42	0.677	0.72398	46	0.716	0.76538	50	0.759	53
8	0.65231	44	0.641	0.68690	48	0.678	0.72463	53	0.717	0.76610	58	0.760	52
9	0.65287	50	0.642	0.68750	54	0.678	0.72529	59	0.717	0.76683	65	0.760	51
10	0.65342	**56**	0.642	0.68811	**61**	0.679	0.72595	**67**	0.718	0.76756	**74**	0.761	50
11	0.65398	6	0.643	0.68871	6	0.679	0.72661	7	0.719	0.76829	7	0.762	49
12	0.65453	11	0.644	0.68932	12	0.680	0.72727	13	0.720	0.76902	15	0.763	48
13	0.65509	17	0.644	0.68992	18	0.681	0.72794	20	0.720	0.76975	22	0.763	47
14	0.65564	22	0.645	0.69053	24	0.681	0.72860	27	0.721	0.77048	30	0.764	46
15	0.65620	28	0.645	0.69113	31	0.682	0.72927	34	0.722	0.77122	37	0.765	45
16	0.65676	34	0.646	0.69174	37	0.683	0.72993	40	0.722	0.77195	44	0.766	44
17	0.65732	39	0.647	0.69235	43	0.683	0.73060	47	0.723	0.77269	52	0.766	43
18	0.65788	45	0.647	0.69296	49	0.684	0.73127	54	0.724	0.77343	59	0.767	42
19	0.65844	50	0.648	0.69357	55	0.684	0.73194	60	0.724	0.77417	67	0.768	41
20	0.65900	**57**	0.648	0.69418	**62**	0.685	0.73261	**68**	0.725	0.77491	**75**	0.769	40
21	0.65957	6	0.649	0.69479	6	0.686	0.73328	7	0.726	0.77565	8	0.769	39
22	0.66013	11	0.649	0.69541	12	0.686	0.73395	14	0.726	0.77639	15	0.770	38
23	0.66069	17	0.650	0.69602	19	0.687	0.73462	20	0.727	0.77714	23	0.771	37
24	0.66126	23	0.651	0.69664	25	0.688	0.73530	27	0.728	0.77789	30	0.772	36
25	0.66182	29	0.651	0.69725	31	0.688	0.73597	34	0.729	0.77863	38	0.773	35
26	0.66239	34	0.652	0.69787	37	0.689	0.73665	41	0.729	0.77938	45	0.773	34
27	0.66296	40	0.652	0.69849	43	0.690	0.73733	48	0.730	0.78013	53	0.774	33
28	0.66353	46	0.653	0.69910	50	0.690	0.73801	54	0.731	0.78088	60	0.775	32
29	0.66409	51	0.654	0.69972	56	0.691	0.73869	61	0.731	0.78164	68	0.776	31
30	0.66466	**57**	0.654	0.70034	**63**	0.692	0.73937	**69**	0.732	0.78239	**76**	0.776	30
31	0.66523	6	0.655	0.70097	6	0.692	0.74005	7	0.733	0.78315	8	0.777	29
32	0.66580	11	0.655	0.70159	13	0.693	0.74073	14	0.733	0.78390	15	0.778	28
33	0.66638	17	0.656	0.70221	19	0.693	0.74142	21	0.734	0.78466	23	0.779	27
34	0.66695	23	0.657	0.70284	25	0.694	0.74210	28	0.735	0.78542	30	0.780	26
35	0.66752	29	0.657	0.70346	32	0.695	0.74279	35	0.736	0.78618	38	0.780	25
36	0.66810	34	0.658	0.70409	38	0.695	0.74348	41	0.736	0.78694	46	0.781	24
37	0.66867	40	0.658	0.70471	44	0.696	0.74417	48	0.737	0.78771	53	0.782	23
38	0.66925	46	0.659	0.70534	50	0.697	0.74486	55	0.738	0.78847	61	0.783	22
39	0.66982	51	0.660	0.70597	57	0.697	0.74555	62	0.738	0.78924	68	0.783	21
40	0.67040	**58**	0.660	0.70660	**64**	0.698	0.74624	**70**	0.739	0.79001	**78**	0.784	20
41	0.67098	6	0.661	0.70723	6	0.699	0.74693	7	0.740	0.79078	8	0.785	19
42	0.67156	12	0.661	0.70786	13	0.699	0.74763	14	0.741	0.79155	16	0.786	18
43	0.67214	17	0.662	0.70850	19	0.700	0.74832	21	0.741	0.79232	23	0.787	17
44	0.67272	23	0.663	0.70913	26	0.701	0.74902	28	0.742	0.79309	31	0.787	16
45	0.67330	29	0.663	0.70976	32	0.701	0.74972	35	0.743	0.79387	39	0.788	15
46	0.67388	35	0.664	0.71040	38	0.702	0.75042	42	0.743	0.79465	47	0.789	14
47	0.67447	41	0.665	0.71104	45	0.703	0.75112	49	0.744	0.79542	55	0.790	13
48	0.67505	46	0.665	0.71167	51	0.703	0.75182	56	0.745	0.79620	62	0.791	12
49	0.67563	52	0.666	0.71231	58	0.704	0.75252	63	0.746	0.79698	70	0.791	11
50	0.67622	**59**	0.666	0.71295	**64**	0.705	0.75323	**71**	0.746	0.79777	**79**	0.792	10
51	0.67681	6	0.667	0.71359	6	0.705	0.75393	7	0.747	0.79855	8	0.793	9
52	0.67739	12	0.668	0.71423	13	0.706	0.75464	14	0.748	0.79933	16	0.794	8
53	0.67798	18	0.668	0.71488	19	0.707	0.75534	21	0.749	0.80012	24	0.795	7
54	0.67857	24	0.669	0.71552	26	0.707	0.75605	28	0.749	0.80091	32	0.795	6
55	0.67916	30	0.669	0.71616	32	0.708	0.75676	36	0.750	0.80170	40	0.796	5
56	0.67975	35	0.670	0.71681	38	0.709	0.75747	43	0.751	0.80249	47	0.797	4
57	0.68034	41	0.671	0.71746	45	0.709	0.75819	50	0.751	0.80328	55	0.798	3
58	0.68093	47	0.671	0.71810	51	0.710	0.75890	57	0.752	0.80408	63	0.799	2
59	0.68153	53	0.672	0.71875	58	0.711	0.75961	64	0.753	0.80487	71	0.799	1
60	0.68212		0.673	0.71940		0.711	0.76033		0.754	0.80567		0.800	0
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(282°) 102°			(281°) 101°			(280°) 100°			(279°) 99°			

第 6 表 I　高度及方位角計算表　h 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	81° (261°)			82° (262°)			83° (263°)			84° (264°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	
0	0.80567	**81**	0.800	0.85644	**91**	0.852	0.91411	**104**	0.911	0.98077	**122**	0.978	60
1	0.80647	8	0.801	0.85734	9	0.853	0.91514	10	0.912	0.98197	12	0.980	59
2	0.80727	16	0.802	0.85825	18	0.854	0.91617	21	0.913	0.98318	24	0.981	58
3	0.80807	24	0.803	0.85915	27	0.855	0.91720	31	0.914	0.98439	37	0.982	57
4	0.80887	32	0.804	0.86006	36	0.856	0.91824	42	0.915	0.98560	49	0.983	56
5	0.80967	41	0.804	0.86096	46	0.857	0.91928	52	0.916	0.98682	61	0.984	55
6	0.81048	49	0.805	0.86187	55	0.858	0.92032	62	0.917	0.98804	73	0.986	54
7	0.81129	57	0.806	0.86278	64	0.859	0.92137	73	0.918	0.98926	85	0.987	53
8	0.81210	65	0.807	0.86370	73	0.860	0.92242	83	0.919	0.99049	98	0.988	52
9	0.81291	73	0.808	0.86461	82	0.861	0.92347	94	0.920	0.99172	110	0.989	51
10	0.81372	**82**	0.809	0.86553	**93**	0.861	0.92452	**107**	0.921	0.99296	**125**	0.991	50
11	0.81453	8	0.809	0.86645	9	0.862	0.92558	11	0.922	0.99419	13	0.992	49
12	0.81535	16	0.810	0.86737	19	0.863	0.92663	21	0.924	0.99544	25	0.993	48
13	0.81617	25	0.811	0.86829	28	0.864	0.92769	32	0.925	0.99668	38	0.994	47
14	0.81698	33	0.812	0.86922	37	0.865	0.92876	43	0.926	0.99793	50	0.996	46
15	0.81780	41	0.813	0.87015	47	0.866	0.92982	54	0.927	0.99918	63	0.997	45
16	0.81863	49	0.814	0.87108	56	0.867	0.93089	64	0.928	1.00044	75	0.998	44
17	0.81945	57	0.814	0.87201	65	0.868	0.93196	75	0.929	1.00170	88	1.000	43
18	0.82027	66	0.815	0.87294	74	0.869	0.93304	86	0.930	1.00296	100	1.001	42
19	0.82110	74	0.816	0.87388	84	0.870	0.93411	96	0.931	1.00423	113	1.002	41
20	0.82193	**84**	0.817	0.87481	**95**	0.871	0.93519	**109**	0.932	1.00550	**129**	1.003	40
21	0.82276	8	0.818	0.87575	10	0.872	0.93628	11	0.933	1.00678	13	1.005	39
22	0.82359	17	0.819	0.87669	19	0.873	0.93736	22	0.934	1.00806	26	1.006	38
23	0.82442	25	0.819	0.87764	29	0.874	0.93845	33	0.936	1.00934	39	1.007	37
24	0.82526	34	0.820	0.87858	38	0.875	0.93954	44	0.937	1.01063	52	1.009	36
25	0.82609	42	0.821	0.87953	48	0.876	0.94063	55	0.938	1.01192	65	1.010	35
26	0.82693	50	0.822	0.88048	57	0.877	0.94173	65	0.939	1.01321	77	1.011	34
27	0.82777	59	0.823	0.88143	67	0.878	0.94283	76	0.940	1.01451	90	1.012	33
28	0.82861	67	0.824	0.88239	76	0.879	0.94393	87	0.941	1.01581	103	1.014	32
29	0.82945	76	0.825	0.88334	86	0.880	0.94503	98	0.942	1.01712	116	1.015	31
30	0.83030	**85**	0.826	0.88430	**97**	0.881	0.94614	**112**	0.943	1.01843	**133**	1.016	30
31	0.83114	9	0.826	0.88526	10	0.882	0.94725	11	0.944	1.01974	13	1.018	29
32	0.83199	17	0.827	0.88623	19	0.883	0.94836	22	0.946	1.02106	27	1.019	28
33	0.83284	26	0.828	0.88719	29	0.884	0.94948	34	0.947	1.02238	40	1.020	27
34	0.83369	34	0.829	0.88816	39	0.884	0.95060	45	0.948	1.02371	53	1.022	26
35	0.83455	43	0.830	0.88913	49	0.885	0.95172	56	0.949	1.02504	67	1.023	25
36	0.83540	51	0.831	0.89010	58	0.886	0.95285	67	0.950	1.02637	80	1.024	24
37	0.83626	60	0.832	0.89107	68	0.887	0.95397	78	0.951	1.02771	93	1.026	23
38	0.83711	68	0.832	0.89205	78	0.888	0.95510	90	0.952	1.02905	106	1.027	22
39	0.83797	77	0.833	0.89303	87	0.889	0.95624	101	0.954	1.03040	120	1.029	21
40	0.83884	**87**	0.834	0.89401	**99**	0.890	0.95738	**115**	0.955	1.03175	**137**	1.030	20
41	0.83970	9	0.835	0.89499	10	0.891	0.95851	12	0.956	1.03311	14	1.031	19
42	0.84056	17	0.836	0.89598	20	0.892	0.95966	23	0.957	1.03447	27	1.033	18
43	0.84143	26	0.837	0.89696	30	0.893	0.96080	35	0.958	1.03583	41	1.034	17
44	0.84230	35	0.838	0.89795	40	0.894	0.96195	46	0.959	1.03720	55	1.035	16
45	0.84317	44	0.839	0.89894	50	0.895	0.96310	58	0.961	1.03857	69	1.037	15
46	0.84404	52	0.840	0.89994	59	0.896	0.96426	69	0.962	1.03995	82	1.038	14
47	0.84492	61	0.840	0.90093	69	0.897	0.96542	81	0.963	1.04133	96	1.040	13
48	0.84579	70	0.841	0.90193	79	0.898	0.96658	92	0.964	1.04272	110	1.041	12
49	0.84667	78	0.842	0.90293	89	0.900	0.96774	104	0.965	1.04411	123	1.042	11
50	0.84755	**89**	0.843	0.90394	**102**	0.901	0.96891	**119**	0.966	1.04550	**142**	1.044	10
51	0.84843	9	0.844	0.90494	10	0.902	0.97008	12	0.968	1.04690	14	1.045	9
52	0.84931	18	0.845	0.90595	20	0.903	0.97126	24	0.969	1.04830	28	1.047	8
53	0.85020	27	0.846	0.90696	31	0.904	0.97243	36	0.970	1.04971	43	1.048	7
54	0.85109	36	0.847	0.90798	41	0.905	0.97361	48	0.971	1.05113	57	1.049	6
55	0.85197	45	0.848	0.90899	51	0.906	0.97480	60	0.972	1.05254	71	1.051	5
56	0.85286	53	0.849	0.91001	61	0.907	0.97598	71	0.974	1.05397	85	1.052	4
57	0.85376	62	0.849	0.91103	71	0.908	0.97717	83	0.975	1.05539	99	1.054	3
58	0.85465	71	0.850	0.91205	82	0.909	0.97837	95	0.976	1.05683	114	1.055	2
59	0.85555	80	0.851	0.91308	92	0.910	0.97957	107	0.977	1.05826	128	1.057	1
60	0.85644		0.852	0.91411		0.911	0.98077		0.978	1.05970		1.058	0
	K_1		Z_1	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(278°)		98°	(277°)		97°	(276°)		96°	(275°)		95°	

第 6 表 I　高度及方位角計算表　h 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	85° (265°)			86° (266°)			87° (267°)			
	K_1		Z_1	K_1		Z_1	K_1		Z_1	
	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L. Tan.	L. Sec.	P.P.	L.Tan.	
0	1.05970	**147**	1.058	1.15642	**185**	1.155	1.28120	**122**		60
1	1.06115	15	1.060	1.15823	19	1.157	.5 1.28241			.5
2	1.06260	29	1.061	1.16004	37	1.159	1 1.28362	24		59
3	1.06406	44	1.062	1.16187	56	1.161	.5 1.28483			.5
4	1.06552	59	1.064	1.16370	74	1.163	2 1.28605	49		58
5	1.06699	74	1.065	1.16554	93	1.165	.5 1.28727		K_1	.5
6	1.06846	88	1.067	1.16739	111	1.166	3 1.28849	73		57
7	1.06993	103	1.068	1.16925	130	1.168	.5 1.28972		ニ等シ	.5
8	1.07141	118	1.070	1.17112	148	1.170	4 1.29095	98		56
9	1.07290	132	1.071	1.17299	167	1.172	.5 1.29219			.5
10	1.07439	**152**	1.073	1.17487	**193**	1.174	5 1.29342	**126**	（小数第三位迄取ルベシ）	55
11	1.07589	15	1.074	1.17676	19	1.176	.5 1.29466			.5
12	1.07739	30	1.076	1.17866	39	1.178	6 1.29591	25		54
13	1.07890	46	1.077	1.18056	58	1.180	.5 1.29716			.5
14	1.08041	61	1.079	1.18248	77	1.182	7 1.29841	50		53
15	1.08193	76	1.080	1.18440	97	1.183	.5 1.29967			.5
16	1.08345	91	1.082	1.18633	116	1.185	8 1.30093	76		52
17	1.08498	106	1.084	1.18827	135	1.187	.5 1.30219			.5
18	1.08651	122	1.085	1.19022	154	1.189	9 1.30346	101		51
19	1.08805	137	1.087	1.19218	174	1.191	.5 1.30473			.5
20	1.08960	**158**	1.088	1.19415	**202**	1.193	10 1.30600	**130**		50
21	1.09115	16	1.090	1.19612	20	1.195	.5 1.30728			.5
22	1.09270	32	1.091	1.19811	40	1.197	11 1.30856	26		49
23	1.09426	47	1.093	1.20010	61	1.199	.5 1.30985			.5
24	1.09583	63	1.094	1.20211	81	1.201	12 1.31114	52		48
25	1.09740	79	1.096	1.20412	101	1.203	.5 1.31243			.5
26	1.09898	95	1.098	1.20614	121	1.205	13 1.31373	78		47
27	1.10057	111	1.099	1.20817	141	1.207	.5 1.31503			.5
28	1.10216	126	1.101	1.21021	162	1.209	14 1.31633	104		46
29	1.10375	142	1.102	1.21226	182	1.211	.5 1.31764			.5
30	1.10536	**164**	1.104	1.21432	**212**	1.214	15 1.31896	**134**		45
31	1.10696	16	1.106	1.21640	21	1.216	.5 1.32027			.5
32	1.10858	33	1.107	1.21848	42	1.218	16 1.32159	27		44
33	1.11020	49	1.109	1.22057	64	1.220	.5 1.32292			.5
34	1.11183	66	1.111	1.22267	85	1.222	17 1.32425	54		43
35	1.11346	82	1.112	1.22478	106	1.224	.5 1.32558			.5
36	1.11510	98	1.114	1.22690	127	1.226	18 1.32692	80		42
37	1.11674	115	1.115	1.22903	148	1.228	.5 1.32826			.5
38	1.11839	131	1.117	1.23117	170	1.230	19 1.32961	107		41
39	1.12005	148	1.119	1.23333	191	1.233	.5 1.33096			.5
40	1.12171	**170**	1.120	1.23549	**223**	1.235	20 1.33231	**138**		40
41	1.12339	17	1.122	1.23766	22	1.237	.5 1.33367			.5
42	1.12506	34	1.124	1.23985	45	1.239	21 1.33503	28		39
43	1.12675	51	1.126	1.24205	67	1.241	.5 1.33640			.5
44	1.12844	68	1.127	1.24425	89	1.244	22 1.33777	55		38
45	1.13013	85	1.129	1.24647	112	1.246	.5 1.33915			.5
46	1.13184	102	1.131	1.24870	134	1.248	23 1.34053	83		37
47	1.13355	119	1.132	1.25094	156	1.250	.5 1.34191			.5
48	1.13526	136	1.134	1.25320	178	1.253	24 1.34330	110		36
49	1.13699	153	1.136	1.25546	201	1.255	.5 1.34469			.5
50	1.13872	**177**	1.138	1.25774	**235**	1.257	25 1.34609	**142**		35
51	1.14045	18	1.139	1.26003	24	1.259	.5 1.34749			.5
52	1.14220	35	1.141	1.26233	47	1.262	26 1.34890	28		34
53	1.14395	53	1.143	1.26465	71	1.264	.5 1.35031			.5
54	1.14571	71	1.145	1.26697	94	1.266	27 1.35173	57		33
55	1.14748	89	1.146	1.26931	118	1.269	.5 1.35315			.5
56	1.14925	106	1.148	1.27166	141	1.271	28 1.35457	85		32
57	1.15103	124	1.150	1.27403	165	1.273	.5 1.35600			.5
58	1.15282	142	1.152	1.27641	188	1.276	29 1.35744	114		31
59	1.15461	159	1.154	1.27880	212	1.278	.5 1.35888			.5
60	1.15642		1.155	1.28120		1.281	30 1.36032			30
	K_1		Z_1	K_1		Z_1	K_1		Z_1	′
	(274°)		94°	(273°)		93°	(272°)		92°	

第 6 表 I　高度及方位角計算表　*h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	87° (267°)			
	K_1		Z_1	
	L. Sec.	P.P.	L.Tan.	
30	1.36032	147		30
.5	1.36177			.5
31	1.36322	29		29
.5	1.36468			.5
32	1.36615	59		28
.5	1.36762			.5
33	1.36909	88	K_1 ニ等シ	27
.5	1.37057			.5
34	1.37205	118		26
.5	1.37354			.5
35	1.37503	152		25
.5	1.37653			.5
36	1.37804	30		24
.5	1.37955			.5
37	1.38106	61		23
.5	1.38258			.5
38	1.38411	91		22
.5	1.38564			.5
39	1.38718	122		21
.5	1.38872			.5
40	1.39027	158		20
.5	1.39182			.5
41	1.39338	32		19
.5	1.39494			.5
42	1.39651	63		18
.5	1.39809			.5
43	1.39967	95		17
.5	1.40126			.5
44	1.40285	126		16
.5	1.40445			.5
45	1.40605	164		15
.5	1.40766			.5
46	1.40928	33		14
.5	1.41090			.5
47	1.41253	66		13
.5	1.41417			.5
48	1.41581	98		12
.5	1.41745			.5
49	1.41911	131		11
.5	1.42077			.5
50	1.42243	170		10
.5	1.42411			.5
51	1.42579	34		9
.5	1.42747			.5
52	1.42916	68		8
.5	1.43086			.5
53	1.43257	102		7
.5	1.43428			.5
54	1.43600	136		6
.5	1.43773			.5
55	1.43946	177		5
.5	1.44120			.5
56	1.44295	35		4
.5	1.44470			.5
57	1.44646	71		3
.5	1.44823			.5
58	1.45001	106		2
.5	1.45179			.5
59	1.45358	142		1
.5	1.45538			.5
60	1.45718			0
	K_1		Z_1	′
	(272°) 92°			

′	88° (268°)			
	K_1		Z_1	
	L. Sec.	P.P.	L.Tan.	
0	1.45718	185		60
.5	1.45899			.5
1	1.46081	37		59
.5	1.46264			.5
2	1.46448	74		58
.5	1.46632			.5
3	1.46817	111	K_1 ニ等シ	57
.5	1.47003			.5
4	1.47190	148		56
.5	1.47377			.5
5	1.47566	193		55
.5	1.47755			.5
6	1.47945	39		54
.5	1.48136			.5
7	1.48327	77		53
.5	1.48520			.5
8	1.48713	116		52
.5	1.48908			.5
9	1.49103	154		51
.5	1.49299			.5
10	1.49496	202		50
.5	1.49693			.5
11	1.49892	40		49
.5	1.50092			.5
12	1.50292	81		48
.5	1.50494			.5
13	1.50696	121		47
.5	1.50899			.5
14	1.51104	162		46
.5	1.51309			.5
15	1.51515	212		45
.5	1.51722			.5
16	1.51931	42		44
.5	1.52140			.5
17	1.52350	85		43
.5	1.52561			.5
18	1.52774	127		42
.5	1.52987			.5
19	1.53201	170		41
.5	1.53417			.5
20	1.53634	223		40
.5	1.53851			.5
21	1.54070	45		39
.5	1.54290			.5
22	1.54511	89		38
.5	1.54733			.5
23	1.54956	134		37
.5	1.55180			.5
24	1.55406	178		36
.5	1.55633			.5
25	1.55861	235		35
.5	1.56090			.5
26	1.56320	47		34
.5	1.56552			.5
27	1.56784	94		33
.5	1.57018			.5
28	1.57254	141		32
.5	1.57490			.5
29	1.57728	188		31
.5	1.57968			.5
30	1.58208			30
	K_1		Z_1	′
	(271°) 91°			

′	88° (268°)			
	K_1		Z_1	
	L. Sec.	P.P.	L.Tan.	
30	1.58208	248		30
.5	1.58450			.5
31	1.58693	50		29
.5	1.58938			.5
32	1.59184	99		28
.5	1.59431			.5
33	1.59680	149	K_1 ニ等シ	27
.5	1.59930			.5
34	1.60182	198		26
.5	1.60435			.5
35	1.60690	263		25
.5	1.60946			.5
36	1.61204	53		24
.5	1.61463			.5
37	1.61724	105		23
.5	1.61986			.5
38	1.62250	158		22
.5	1.62516			.5
39	1.62783	210		21
.5	1.63052			.5
40	1.63322	280		20
.5	1.63595			.5
41	1.63869	56		19
.5	1.64144			.5
42	1.64422	112		18
.5	1.64701			.5
43	1.64982	168		17
.5	1.65265			.5
44	1.65550	224		16
.5	1.65836			.5
45	1.66125	300		15
.5	1.66415			.5
46	1.66708	60		14
.5	1.67002			.5
47	1.67298	120		13
.5	1.67597			.5
48	1.67897	180		12
.5	1.68200			.5
49	1.68505	240		11
.5	1.68812			.5
50	1.69121	322		10
.5	1.69432			.5
51	1.69745	64		9
.5	1.70061			.5
52	1.70379	129		8
.5	1.70700			.5
53	1.71023	193		7
.5	1.71348			.5
54	1.71676	258		6
.5	1.72006			.5
55	1.72339	348		5
.5	1.72674			.5
56	1.73012	70		4
.5	1.73352			.5
57	1.73696	139		3
.5	1.74042			.5
58	1.74391	209		2
.5	1.74742			.5
59	1.75097	278		1
.5	1.75454			.5
60	1.75814			0
	K_1		Z_1	′
	(271°) 91°			

第 6 表 I　高度及方位角計算表　*h* 表

h ：0°—90°—180°—270°—360°
見出シ：上　下　上　下

′	89° (269°)							
	0′.0	0′.1	0′.2	0′.3	0′.4	0′.5	Z_1	
	K_1							
	L. Sec.						L. Tan.	
0	1.75814	1.75887	1.75959	1.76032	1.76105	1.76178		59
1	1.76544	1.76618	1.76692	1.76766	1.76840	1.76914		58
2	1.77287	1.77362	1.77437	1.77512	1.77587	1.77663		57
3	1.78042	1.78118	1.78195	1.78271	1.78348	1.78424		56
4	1.78811	1.78888	1.78966	1.79044	1.79122	1.79200		55
5	1.79593	1.79672	1.79751	1.79830	1.79910	1.79990	K_1	54
6	1.80390	1.80470	1.80551	1.80632	1.80713	1.80794		53
7	1.81202	1.81284	1.81366	1.81448	1.81531	1.81613		52
8	1.82029	1.82112	1.82196	1.82280	1.82364	1.82448		51
9	1.82872	1.82957	1.83043	1.83128	1.83214	1.83300		50
10	1.83732	1.83819	1.83906	1.83993	1.84081	1.84168		49
11	1.84609	1.84698	1.84787	1.84876	1.84965	1.85055		48
12	1.85505	1.85595	1.85686	1.85777	1.85868	1.85959		47
13	1.86419	1.86511	1.86604	1.86697	1.86790	1.86883		46
14	1.87353	1.87447	1.87542	1.87637	1.87732	1.87828		45
15	1.88307	1.88404	1.88501	1.88598	1.88695	1.88793		44
16	1.89283	1.89382	1.89481	1.89580	1.89680	1.89780		43
17	1.90282	1.90383	1.90484	1.90586	1.90688	1.90790		42
18	1.91304	1.91407	1.91511	1.91615	1.91719	1.91824		41
19	1.92350	1.92456	1.92562	1.92669	1.92776	1.92883		40
20	1.93422	1.93531	1.93640	1.93749	1.93859	1.93969		39
21	1.94522	1.94633	1.94745	1.94857	1.94970	1.95082		38
22	1.95650	1.95764	1.95879	1.95994	1.96109	1.96225		37
23	1.96808	1.96926	1.97043	1.97162	1.97280	1.97399		36
24	1.97998	1.98119	1.98240	1.98361	1.98483	1.98605		35
25	1.99221	1.99346	1.99470	1.99595	1.99721	1.99846		34
26	2.00480	2.00608	2.00736	2.00865	2.00994	2.01124		33
27	2.01777	2.01908	2.02041	2.02173	2.02306	2.02440		32
28	2.03113	2.03249	2.03385	2.03522	2.03659	2.03797		31
29	2.04492	2.04632	2.04773	2.04914	2.05056	2.05198		30
30	2.05916	2.06061	2.06206	2.06352	2.06499	2.06646		29
31	2.07388	2.07538	2.07689	2.07840	2.07991	2.08143		28
32	2.08912	2.09067	2.09223	2.09380	2.09537	2.09695		27
33	2.10491	2.10653	2.10814	2.10977	2.11140	2.11303		26
34	2.12130	2.12298	2.12466	2.12634	2.12804	2.12974		25
35	2.13834	2.14008	2.14183	2.14358	2.14534	2.14711		24
36	2.15607	2.15788	2.15970	2.16153	2.16337	2.16521		23
37	2.17455	2.17644	2.17834	2.18025	2.18217	2.18409		22
38	2.19385	2.19583	2.19782	2.19982	2.20182	2.20384		21
39	2.21406	2.21613	2.21821	2.22031	2.22241	2.22452		20
40	2.23525	2.23742	2.23961	2.24181	2.24402	2.24624		19
41	2.25752	2.25981	2.26212	2.26443	2.26676	2.26910		18
42	2.28100	2.28342	2.28586	2.28830	2.29076	2.29324		17
43	2.30583	2.30839	2.31097	2.31356	2.31617	2.31879		16
44	2.33216	2.33488	2.33762	2.34038	2.34315	2.34594		15
45	2.36018	2.36309	2.36601	2.36896	2.37192	2.37491		14
46	2.39015	2.39326	2.39640	2.39955	2.40274	2.40594		13
47	2.42233	2.42569	2.42906	2.43247	2.43590	2.43936		12
48	2.45709	2.46073	2.46439	2.46809	2.47182	2.47558		11
49	2.49488	2.49885	2.50285	2.50689	2.51097	2.51509		10
50	2.53627	2.54064	2.54505	2.54950	2.55400	2.55855		9
51	2.58203	2.58688	2.59179	2.59676	2.60178	2.60686		8
52	2.63318	2.63865	2.64418	2.64978	2.65546	2.66121		7
53	2.69118	2.69743	2.70377	2.71020	2.71673	2.72336		6
54	2.75812	2.76542	2.77285	2.78040	2.78809	2.79591		5
55	2.83730	2.84608	2.85503	2.86418	2.87352	2.88306		4
56	2.93421	2.94521	2.95649	2.96807	2.97997	2.99221		3
57	3.05915	3.07388	3.08912	3.10491	3.12130	3.13833		2
58	3.23524	3.25752	3.28100	3.30582	3.33215	3.36018		1
59	3.53627	3.58203	3.63318	3.69118	3.75812	3.83730		0
	1′.0	0′.9	0′.8	0′.7	0′.6	0′.5	Z_1	′
	K_1							
	(270°) 90°							

第 6 表 I　高度及方位角計算表 h 表

h ：0°−90°−180°−270°−360°
見出シ：上　下　上　下

′	89°　(269°)						Z_1	
	0′.5	0′.6	0′.7	0′.8	0′.9	1′.0		
	K_1							
	L. Sec.						L. Tan.	
0	1.76178	1.76251	1.76324	1.76397	1.76471	1.76544		59
1	1.76914	1.76988	1.77063	1.77137	1.77212	1.77287		58
2	1.77663	1.77738	1.77814	1.77890	1.77966	1.78042		57
3	1.78424	1.78501	1.78578	1.78656	1.78733	1.78811		56
4	1.79200	1.79278	1.79357	1.79435	1.79514	1.79593		55
5	1.79990	1.80069	1.80149	1.80229	1.80309	1.80390	K_1	54
6	1.80794	1.80875	1.80956	1.81038	1.81120	1.81202	＝	53
7	1.81613	1.81696	1.81779	1.81862	1.81945	1.82029	等	52
8	1.82448	1.82533	1.82617	1.82702	1.82787	1.82872	シ	51
9	1.83300	1.83386	1.83472	1.83559	1.83645	1.83732		50
10	1.84168	1.84256	1.84344	1.84432	1.84521	1.84609	（小	49
11	1.85055	1.85144	1.85234	1.85324	1.85414	1.85505	數	48
12	1.85959	1.86051	1.86143	1.86235	1.86327	1.86419	第	47
13	1.86883	1.86977	1.87071	1.87164	1.87259	1.87353	三	46
14	1.87828	1.87923	1.88019	1.88115	1.88211	1.88307	位	45
15	1.88793	1.88890	1.88988	1.89086	1.89185	1.89283	迄	44
16	1.89780	1.89880	1.89980	1.90080	1.90181	1.90282	取	43
17	1.90790	1.90892	1.90994	1.91097	1.91200	1.91304	ル	42
18	1.91824	1.91928	1.92033	1.92139	1.92244	1.92350	ベ	41
19	1.92883	1.92990	1.93098	1.93206	1.93314	1.93422	シ）	40
20	1.93969	1.94079	1.94189	1.94300	1.94411	1.94522		39
21	1.95082	1.95195	1.95308	1.95422	1.95536	1.95650		38
22	1.96225	1.96341	1.96457	1.96574	1.96691	1.96808		37
23	1.97399	1.97518	1.97638	1.97757	1.97877	1.97998		36
24	1.98605	1.98728	1.98851	1.98974	1.99097	1.99221		35
25	1.99846	1.99972	2.00099	2.00225	2.00353	2.00480		34
26	2.01124	2.01253	2.01384	2.01514	2.01645	2.01777		33
27	2.02440	2.02574	2.02708	2.02842	2.02978	2.03113		32
28	2.03797	2.03935	2.04074	2.04213	2.04352	2.04492		31
29	2.05198	2.05341	2.05484	2.05627	2.05771	2.05916		30
30	2.06646	2.06793	2.06941	2.07090	2.07239	2.07388		29
31	2.08143	2.08296	2.08449	2.08603	2.08757	2.08912		28
32	2.09695	2.09853	2.10012	2.10171	2.10331	2.10491		27
33	2.11303	2.11467	2.11632	2.11798	2.11964	2.12130		26
34	2.12974	2.13144	2.13316	2.13488	2.13660	2.13834		25
35	2.14711	2.14889	2.15067	2.15246	2.15426	2.15607		24
36	2.16521	2.16706	2.16892	2.17079	2.17267	2.17455		23
37	2.18409	2.18603	2.18797	2.18992	2.19188	2.19385		22
38	2.20384	2.20586	2.20790	2.20994	2.21199	2.21406		21
39	2.22452	2.22665	2.22878	2.23093	2.23308	2.23525		20
40	2.24624	2.24847	2.25072	2.25297	2.25524	2.25752		19
41	2.26910	2.27146	2.27382	2.27620	2.27860	2.28100		18
42	2.29324	2.29573	2.29823	2.30075	2.30328	2.30583		17
43	2.31879	2.32143	2.32409	2.32676	2.32945	2.33216		16
44	2.34594	2.34875	2.35158	2.35443	2.35730	2.36018		15
45	2.37491	2.37791	2.38094	2.38399	2.38706	2.39015		14
46	2.40594	2.40917	2.41242	2.41570	2.41900	2.42233		13
47	2.43936	2.44285	2.44637	2.44991	2.45349	2.45709		12
48	2.47558	2.47937	2.48320	2.48706	2.49095	2.49488		11
49	2.51509	2.51924	2.52344	2.52767	2.53195	2.53627		10
50	2.55855	2.56315	2.56779	2.57249	2.57723	2.58203		9
51	2.60686	2.61200	2.61720	2.62246	2.62779	2.63318		8
52	2.66121	2.66704	2.67295	2.67894	2.68502	2.69118		7
53	2.72336	2.73009	2.73693	2.74388	2.75094	2.75812		6
54	2.79591	2.80388	2.81200	2.82027	2.82870	2.83730		5
55	2.88306	2.89282	2.90281	2.91302	2.92349	2.93421		4
56	2.99221	3.00480	3.01776	3.03112	3.04491	3.05915		3
57	3.13833	3.15606	3.17455	3.19385	3.21405	3.23524		2
58	3.36018	3.39015	3.42233	3.45709	3.49488	3.53627		1
59	3.83730	3.93421	4.05915	4.23524	4.53627	+ ∞ ＊	＊	0
	K_1						Z_1	′
	0′.5	0′.4	0′.3	0′.2	0′.1	0′.0		
	(270°)　90°							

＊ h=90°, 270° ナルトキ　K=0 $\begin{cases} A_4 = A_3 + A_2 \\ Z_4 = Z_3 - K_2 \text{(3桁)} \end{cases}$

第 6 表 II　高度及方位角計算表 d 表

′	0°									
	0′.0		0′.1		0′.2		0′.3		0′.4	
	K_2	A_1	K_2	A_1	K_2	A_1	K_2	A_1	K_2	A_1
	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.
0	−∞ ＊	−∞ ＊	5.46373	5.46373	5.76476	5.76476	5.94085	5.94085	6.06579	6.06579
1	6.46373	6.46373	6.50512	6.50512	6.54291	6.54291	6.57767	6.57767	6.60985	6.60985
2	6.76476	6.76476	6.78595	6.78595	6.80615	6.80615	6.82545	6.82545	6.84394	6.84394
3	6.94085	6.94085	6.95509	6.95509	6.96888	6.96888	6.98224	6.98224	6.99521	6.99520
4	7.06579	7.06579	7.07651	7.07651	7.08698	7.08698	7.09719	7.09719	7.10718	7.10718
5	7.16270	7.16270	7.17130	7.17130	7.17973	7.17973	7.18800	7.18800	7.19612	7.19612
6	7.24188	7.24188	7.24906	7.24906	7.25612	7.25612	7.26307	7.26307	7.26991	7.26991
7	7.30882	7.30882	7.31499	7.31498	7.32106	7.32106	7.32705	7.32705	7.33296	7.33296
8	7.36682	7.36682	7.37221	7.37221	7.37754	7.37754	7.38281	7.38280	7.38801	7.38800
9	7.41797	7.41797	7.42277	7.42277	7.42751	7.42751	7.43221	7.43221	7.43686	7.43685
10	7.46373	7.46373	7.46805	7.46805	7.47233	7.47233	7.47656	7.47656	7.48076	7.48076
11	7.50512	7.50512	7.50905	7.50905	7.51295	7.51294	7.51681	7.51680	7.52063	7.52063
12	7.54291	7.54291	7.54651	7.54651	7.55009	7.55009	7.55363	7.55363	7.55715	7.55715
13	7.57767	7.57767	7.58100	7.58100	7.58430	7.58430	7.58758	7.58758	7.59083	7.59083
14	7.60986	7.60985	7.61295	7.61294	7.61602	7.61601	7.61906	7.61906	7.62209	7.62209
15	7.63982	7.63982	7.64271	7.64270	7.64557	7.64557	7.64842	7.64842	7.65125	7.65125
16	7.66785	7.66784	7.67056	7.67055	7.67324	7.67324	7.67592	7.67591	7.67857	7.67857
17	7.69418	7.69417	7.69673	7.69672	7.69926	7.69925	7.70178	7.70177	7.70428	7.70427
18	7.71900	7.71900	7.72141	7.72140	7.72380	7.72380	7.72618	7.72618	7.72855	7.72854
19	7.74248	7.74248	7.74476	7.74476	7.74703	7.74703	7.74929	7.74928	7.75153	7.75153
20	7.76476	7.76475	7.76693	7.76692	7.76908	7.76907	7.77123	7.77122	7.77336	7.77335
21	7.78595	7.78594	7.78801	7.78801	7.79007	7.79006	7.79211	7.79210	7.79415	7.79414
22	7.80615	7.80615	7.80812	7.80812	7.81009	7.81008	7.81204	7.81203	7.81398	7.81397
23	7.82546	7.82545	7.82734	7.82733	7.82922	7.82921	7.83109	7.83108	7.83295	7.83294
24	7.84394	7.84393	7.84575	7.84574	7.84755	7.84754	7.84934	7.84933	7.85112	7.85111
25	7.86167	7.86166	7.86341	7.86340	7.86513	7.86512	7.86685	7.86684	7.86857	7.86856
26	7.87871	7.87870	7.88037	7.88036	7.88204	7.88202	7.88369	7.88368	7.88534	7.88533
27	7.89510	7.89509	7.89670	7.89669	7.89830	7.89829	7.89990	7.89988	7.90149	7.90147
28	7.91089	7.91088	7.91244	7.91243	7.91398	7.91397	7.91552	7.91551	7.91705	7.91704
29	7.92613	7.92612	7.92763	7.92761	7.92912	7.92910	7.93060	7.93059	7.93208	7.93207
30	7.94086	7.94084	7.94230	7.94229	7.94374	7.94373	7.94518	7.94516	7.94661	7.94659
31	7.95510	7.95508	7.95650	7.95648	7.95789	7.95787	7.95928	7.95926	7.96067	7.96065
32	7.96889	7.96887	7.97024	7.97022	7.97159	7.97158	7.97294	7.97292	7.97428	7.97426
33	7.98225	7.98223	7.98357	7.98355	7.98488	7.98486	7.98618	7.98616	7.98749	7.98747
34	7.99522	7.99520	7.99649	7.99647	7.99777	7.99775	7.99903	7.99901	8.00030	8.00028
35	8.00781	8.00779	8.00905	8.00903	8.01028	8.01026	8.01152	8.01149	8.01274	8.01272
36	8.02004	8.02002	8.02125	8.02123	8.02245	8.02243	8.02365	8.02362	8.02484	8.02482
37	8.03194	8.03192	8.03312	8.03309	8.03429	8.03426	8.03545	8.03543	8.03661	8.03659
38	8.04353	8.04350	8.04467	8.04464	8.04581	8.04578	8.04694	8.04692	8.04808	8.04805
39	8.05481	8.05478	8.05592	8.05589	8.05703	8.05700	8.05814	8.05811	8.05924	8.05921
40	8.06581	8.06578	8.06689	8.06686	8.06797	8.06794	8.06905	8.06902	8.07013	8.07010
41	8.07653	8.07650	8.07759	8.07756	8.07864	8.07861	8.07970	8.07967	8.08075	8.08072
42	8.08700	8.08696	8.08803	8.08800	8.08906	8.08903	8.09009	8.09006	8.09111	8.09108
43	8.09722	8.09718	8.09823	8.09819	8.09923	8.09920	8.10024	8.10020	8.10124	8.10120
44	8.10720	8.10717	8.10819	8.10815	8.10917	8.10914	8.11015	8.11012	8.11113	8.11110
45	8.11696	8.11693	8.11793	8.11789	8.11889	8.11885	8.11985	8.11981	8.12081	8.12077
46	8.12651	8.12647	8.12745	8.12741	8.12839	8.12836	8.12933	8.12929	8.13027	8.13023
47	8.13585	8.13581	8.13677	8.13673	8.13770	8.13765	8.13861	8.13857	8.13953	8.13949
48	8.14500	8.14495	8.14590	8.14586	8.14680	8.14676	8.14770	8.14766	8.14860	8.14856
49	8.15395	8.15391	8.15484	8.15479	8.15572	8.15568	8.15660	8.15656	8.15748	8.15744
50	8.16273	8.16268	8.16359	8.16355	8.16446	8.16441	8.16533	8.16528	8.16619	8.16614
51	8.17133	8.17128	8.17218	8.17213	8.17303	8.17298	8.17388	8.17383	8.17472	8.17467
52	8.17976	8.17971	8.18060	8.18055	8.18143	8.18138	8.18226	8.18221	8.18309	8.18304
53	8.18804	8.18798	8.18886	8.18880	8.18967	8.18962	8.19049	8.19044	8.19130	8.19125
54	8.19616	8.19610	8.19696	8.19691	8.19776	8.19771	8.19856	8.19851	8.19936	8.19931
55	8.20413	8.20407	8.20491	8.20486	8.20570	8.20565	8.20649	8.20643	8.20727	8.20722
56	8.21195	8.21189	8.21273	8.21267	8.21350	8.21344	8.21427	8.21422	8.21504	8.21499
57	8.21964	8.21958	8.22040	8.22034	8.22116	8.22110	8.22192	8.22186	8.22268	8.22262
58	8.22720	8.22713	8.22794	8.22788	8.22869	8.22863	8.22944	8.22937	8.23018	8.23012
59	8.23462	8.23456	8.23536	8.23529	8.23609	8.23603	8.23682	8.23676	8.23756	8.23749

＊ d=0　ナルトキ　K=90° $\begin{cases} A_4 = A_3 - K_1 \\ Z_4 = Z_3 + Z_1 \end{cases}$

′	0°									
	0′.5		0′.6		0′.7		0′.8		0′.9	
	K_2	A_1	K_2	A_1	K_2	A_1	K_2	A_1	K_2	A_1
	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.
0	6.16270	6.16270	6.24188	6.24188	6.30882	6.30882	6.36682	6.36682	6.41797	6.41797
1	6.63982	6.63982	6.66785	6.66785	6.69418	6.69418	6.71900	6.71900	6.74248	6.74248
2	6.86167	6.86167	6.87870	6.87870	6.89509	6.89509	6.91088	6.91088	6.92612	6.92612
3	7.00779	7.00779	7.02003	7.02003	7.03193	7.03193	7.04351	7.04351	7.05479	7.05479
4	7.11694	7.11694	7.12648	7.12648	7.13582	7.13582	7.14497	7.14497	7.15392	7.15392
5	7.20409	7.20409	7.21191	7.21191	7.21960	7.21960	7.22715	7.22715	7.23458	7.23458
6	7.27664	7.27664	7.28327	7.28327	7.28980	7.28980	7.29624	7.29623	7.30258	7.30257
7	7.33879	7.33879	7.34454	7.34454	7.35022	7.35022	7.35582	7.35582	7.36135	7.36135
8	7.39315	7.39314	7.39823	7.39822	7.40325	7.40324	7.40821	7.40821	7.41312	7.41312
9	7.44145	7.44145	7.44600	7.44600	7.45050	7.45050	7.45495	7.45495	7.45936	7.45936
10	7.48492	7.48491	7.48903	7.48903	7.49311	7.49311	7.49715	7.49715	7.50115	7.50115
11	7.52443	7.52442	7.52819	7.52818	7.53191	7.53191	7.53561	7.53561	7.53927	7.53927
12	7.56064	7.56064	7.56410	7.56410	7.56753	7.56753	7.57094	7.57094	7.57432	7.57431
13	7.59406	7.59406	7.59727	7.59726	7.60045	7.60045	7.60361	7.60360	7.60674	7.60674
14	7.62510	7.62509	7.62808	7.62808	7.63105	7.63104	7.63399	7.63399	7.63692	7.63691
15	7.65406	7.65406	7.65685	7.65685	7.65963	7.65962	7.66239	7.66238	7.66513	7.66512
16	7.68121	7.68121	7.68384	7.68383	7.68645	7.68644	7.68904	7.68903	7.69162	7.69161
17	7.70677	7.70676	7.70924	7.70924	7.71170	7.71170	7.71415	7.71414	7.71658	7.71658
18	7.73090	7.73090	7.73324	7.73324	7.73557	7.73557	7.73789	7.73788	7.74019	7.74019
19	7.75377	7.75376	7.75599	7.75598	7.75820	7.75819	7.76040	7.76039	7.76258	7.76258
20	7.77549	7.77548	7.77760	7.77759	7.77970	7.77969	7.78179	7.78179	7.78388	7.78387
21	7.79617	7.79616	7.79819	7.79818	7.80019	7.80018	7.80219	7.80218	7.80418	7.80417
22	7.81591	7.81591	7.81784	7.81783	7.81976	7.81975	7.82167	7.82166	7.82357	7.82356
23	7.83480	7.83479	7.83664	7.83663	7.83848	7.83847	7.84031	7.84030	7.84213	7.84212
24	7.85290	7.85289	7.85467	7.85466	7.85643	7.85642	7.85819	7.85817	7.85993	7.85992
25	7.87027	7.87026	7.87197	7.87196	7.87367	7.87366	7.87535	7.87534	7.87703	7.87702
26	7.88698	7.88697	7.88862	7.88860	7.89025	7.89023	7.89187	7.89186	7.89349	7.89347
27	7.90307	7.90305	7.90464	7.90463	7.90622	7.90620	7.90778	7.90777	7.90934	7.90933
28	7.91858	7.91857	7.92010	7.92009	7.92162	7.92160	7.92313	7.92311	7.92463	7.92462
29	7.93356	7.93354	7.93503	7.93501	7.93649	7.93648	7.93795	7.93794	7.93941	7.93939
30	7.94804	7.94802	7.94946	7.94944	7.95088	7.95086	7.95229	7.95227	7.95370	7.95368
31	7.96205	7.96203	7.96343	7.96341	7.96480	7.96478	7.96617	7.96615	7.96753	7.96751
32	7.97562	7.97560	7.97696	7.97694	7.97829	7.97827	7.97961	7.97959	7.98094	7.98092
33	7.98878	7.98876	7.99008	7.99006	7.99137	7.99135	7.99266	7.99264	7.99394	7.99392
34	8.00156	8.00154	8.00282	8.00279	8.00407	8.00405	8.00532	8.00530	8.00657	8.00654
35	8.01397	8.01395	8.01519	8.01517	8.01641	8.01639	8.01762	8.01760	8.01884	8.01881
36	8.02604	8.02601	8.02722	8.02720	8.02841	8.02838	8.02959	8.02957	8.03077	8.03074
37	8.03777	8.03775	8.03893	8.03891	8.04008	8.04006	8.04124	8.04121	8.04238	8.04236
38	8.04921	8.04918	8.05033	8.05030	8.05146	8.05143	8.05258	8.05255	8.05369	8.05367
39	8.06034	8.06031	8.06144	8.06141	8.06254	8.06251	8.06363	8.06360	8.06472	8.06469
40	8.07120	8.07117	8.07227	8.07224	8.07334	8.07331	8.07441	8.07438	8.07547	8.07544
41	8.08180	8.08176	8.08284	8.08281	8.08388	8.08385	8.08492	8.08489	8.08596	8.08593
42	8.09214	8.09210	8.09316	8.09312	8.09418	8.09414	8.09519	8.09516	8.09621	8.09617
43	8.10224	8.10220	8.10324	8.10320	8.10423	8.10420	8.10522	8.10519	8.10621	8.10618
44	8.11211	8.11207	8.11309	8.11305	8.11406	8.11402	8.11503	8.11499	8.11600	8.11596
45	8.12176	8.12172	8.12272	8.12268	8.12367	8.12363	8.12462	8.12458	8.12556	8.12553
46	8.13121	8.13117	8.13214	8.13210	8.13307	8.13303	8.13400	8.13396	8.13493	8.13489
47	8.14045	8.14041	8.14136	8.14132	8.14227	8.14223	8.14318	8.14314	8.14409	8.14405
48	8.14950	8.14945	8.15039	8.15035	8.15128	8.15124	8.15218	8.15213	8.15306	8.15302
49	8.15836	8.15832	8.15924	8.15919	8.16011	8.16007	8.16099	8.16094	8.16186	8.16181
50	8.16705	8.16700	8.16791	8.16786	8.16877	8.16872	8.16962	8.16957	8.17048	8.17043
51	8.17557	8.17552	8.17641	8.17636	8.17725	8.17720	8.17809	8.17804	8.17893	8.17888
52	8.18392	8.18387	8.18475	8.18469	8.18557	8.18552	8.18639	8.18634	8.18722	8.18716
53	8.19211	8.19206	8.19293	8.19287	8.19374	8.19368	8.19454	8.19449	8.19535	8.19530
54	8.20016	8.20010	8.20096	8.20090	8.20175	8.20170	8.20254	8.20249	8.20334	8.20328
55	8.20806	8.20800	8.20884	8.20878	8.20962	8.20956	8.21040	8.21034	8.21118	8.21112
56	8.21581	8.21576	8.21658	8.21652	8.21735	8.21729	8.21811	8.21805	8.21888	8.21882
57	8.22343	8.22337	8.22419	8.22413	8.22494	8.22488	8.22569	8.22563	8.22645	8.22638
58	8.23092	8.23086	8.23167	8.23160	8.23241	8.23234	8.23315	8.23308	8.23388	8.23382
59	8.23829	8.23822	8.23902	8.23895	8.23974	8.23968	8.24047	8.24041	8.24120	8.24113

′	1°									
	0′.0		0′.1		0′.2		0′.3		0′.4	
	K_2	A_1	K_2	A_1	K_2	A_1	K_2	A_1	K_2	A_1
	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.
0	8.24192	8.24186	8.24264	8.24258	8.24337	8.24330	8.24409	8.24402	8.24481	8.24474
1	8.24910	8.24903	8.24981	8.24974	8.25052	8.25045	8.25123	8.25116	8.25194	8.25187
2	8.25616	8.25609	8.25686	8.25679	8.25756	8.25749	8.25826	8.25819	8.25896	8.25889
3	8.26312	8.26304	8.26380	8.26373	8.26449	8.26442	8.26518	8.26511	8.26586	8.26579
4	8.26996	8.26988	8.27063	8.27056	8.27131	8.27124	8.27199	8.27191	8.27266	8.27259
5	8.27669	8.27661	8.27736	8.27728	8.27803	8.27795	8.27869	8.27861	8.27936	8.27928
6	8.28332	8.28324	8.28398	8.28390	8.28464	8.28456	8.28529	8.28521	8.28595	8.28587
7	8.28986	8.28977	8.29050	8.29042	8.29115	8.29107	8.29180	8.29171	8.29244	8.29236
8	8.29629	8.29621	8.29693	8.29684	8.29757	8.29748	8.29820	8.29812	8.29884	8.29875
9	8.30263	8.30255	8.30326	8.30317	8.30389	8.30380	8.30452	8.30443	8.30514	8.30506
10	8.30888	8.30879	8.30950	8.30941	8.31012	8.31003	8.31074	8.31065	8.31136	8.31127
11	8.31505	8.31495	8.31566	8.31556	8.31627	8.31618	8.31688	8.31678	8.31749	8.31739
12	8.32112	8.32103	8.32173	8.32163	8.32233	8.32223	8.32293	8.32283	8.32353	8.32343
13	8.32711	8.32702	8.32771	8.32761	8.32830	8.32820	8.32890	8.32880	8.32949	8.32939
14	8.33302	8.33292	8.33361	8.33351	8.33420	8.33410	8.33478	8.33468	8.33537	8.33527
15	8.33886	8.33875	8.33944	8.33933	8.34001	8.33991	8.34059	8.34049	8.34117	8.34106
16	8.34461	8.34450	8.34518	8.34508	8.34575	8.34565	8.34632	8.34622	8.34689	8.34678
17	8.35029	8.35018	8.35085	8.35074	8.35142	8.35131	8.35198	8.35187	8.35254	8.35243
18	8.35590	8.35578	8.35645	8.35634	8.35701	8.35690	8.35756	8.35745	8.35812	8.35800
19	8.36143	8.36131	8.36198	8.36186	8.36253	8.36241	8.36308	8.36296	8.36362	8.36351
20	8.36689	8.36678	8.36744	8.36732	8.36798	8.36786	8.36852	8.36840	8.36906	8.36894
21	8.37229	8.37217	8.37283	8.37271	8.37336	8.37324	8.37390	8.37378	8.37443	8.37431
22	8.37762	8.37750	8.37815	8.37803	8.37868	8.37856	8.37921	8.37908	8.37974	8.37961
23	8.38289	8.38276	8.38341	8.38328	8.38393	8.38381	8.38446	8.38433	8.38498	8.38485
24	8.38809	8.38796	8.38861	8.38848	8.38913	8.38899	8.38964	8.38951	8.39016	8.39002
25	8.39323	8.39310	8.39374	8.39361	8.39425	8.39412	8.39476	8.39463	8.39527	8.39514
26	8.39832	8.39818	8.39882	8.39868	8.39932	8.39919	8.39983	8.39969	8.40033	8.40019
27	8.40334	8.40320	8.40384	8.40370	8.40434	8.40420	8.40483	8.40469	8.40533	8.40519
28	8.40830	8.40816	8.40880	8.40865	8.40929	8.40915	8.40978	8.40964	8.41027	8.41013
29	8.41321	8.41307	8.41370	8.41356	8.41419	8.41404	8.41468	8.41453	8.41516	8.41501
30	8.41807	8.41792	8.41855	8.41840	8.41903	8.41888	8.41951	8.41936	8.41999	8.41984
31	8.42287	8.42272	8.42335	8.42319	8.42382	8.42367	8.42430	8.42415	8.42477	8.42462
32	8.42762	8.42746	8.42809	8.42793	8.42856	8.42840	8.42903	8.42888	8.42950	8.42935
33	8.43232	8.43216	8.43278	8.43262	8.43325	8.43309	8.43371	8.43355	8.43418	8.43402
34	8.43696	8.43680	8.43742	8.43726	8.43789	8.43772	8.43835	8.43818	8.43881	8.43864
35	8.44156	8.44139	8.44202	8.44185	8.44247	8.44231	8.44293	8.44276	8.44339	8.44322
36	8.44611	8.44594	8.44656	8.44639	8.44701	8.44684	8.44747	8.44730	8.44792	8.44775
37	8.45061	8.45044	8.45106	8.45089	8.45151	8.45133	8.45195	8.45178	8.45240	8.45223
38	8.45507	8.45489	8.45551	8.45534	8.45596	8.45578	8.45640	8.45622	8.45684	8.45666
39	8.45948	8.45930	8.45992	8.45974	8.46036	8.46018	8.46080	8.46061	8.46123	8.46105
40	8.46385	8.46366	8.46428	8.46410	8.46472	8.46453	8.46515	8.46497	8.46558	8.46540
41	8.46817	8.46799	8.46860	8.46841	8.46903	8.46884	8.46946	8.46927	8.46989	8.46970
42	8.47245	8.47226	8.47288	8.47269	8.47330	8.47311	8.47373	8.47354	8.47415	8.47396
43	8.47669	8.47650	8.47712	8.47692	8.47754	8.47734	8.47796	8.47776	8.47838	8.47818
44	8.48089	8.48069	8.48131	8.48111	8.48173	8.48153	8.48214	8.48194	8.48256	8.48236
45	8.48505	8.48485	8.48546	8.48526	8.48588	8.48567	8.48629	8.48609	8.48670	8.48650
46	8.48917	8.48896	8.48958	8.48937	8.48999	8.48978	8.49040	8.49019	8.49081	8.49060
47	8.49325	8.49304	8.49366	8.49345	8.49406	8.49385	8.49447	8.49426	8.49487	8.49466
48	8.49729	8.49708	8.49769	8.49748	8.49810	8.49788	8.49850	8.49828	8.49890	8.49868
49	8.50130	8.50108	8.50170	8.50148	8.50209	8.50188	8.50249	8.50227	8.50289	8.50267
50	8.50527	8.50504	8.50566	8.50544	8.50606	8.50583	8.50645	8.50623	8.50684	8.50662
51	8.50920	8.50897	8.50959	8.50936	8.50998	8.50976	8.51037	8.51015	8.51076	8.51054
52	8.51310	8.51287	8.51349	8.51325	8.51387	8.51364	8.51426	8.51403	8.51465	8.51442
53	8.51696	8.51673	8.51735	8.51711	8.51773	8.51749	8.51811	8.51788	8.51850	8.51826
54	8.52079	8.52055	8.52117	8.52093	8.52155	8.52131	8.52193	8.52169	8.52231	8.52207
55	8.52459	8.52434	8.52496	8.52472	8.52534	8.52510	8.52572	8.52547	8.52610	8.52585
56	8.52835	8.52810	8.52872	8.52848	8.52910	8.52885	8.52947	8.52922	8.52985	8.52960
57	8.53208	8.53183	8.53245	8.53220	8.53282	8.53257	8.53319	8.53294	8.53356	8.53331
58	8.53578	8.53552	8.53615	8.53589	8.53651	8.53626	8.53688	8.53663	8.53725	8.53699
59	8.53945	8.53919	8.53981	8.53955	8.54018	8.53992	8.54054	8.54028	8.54091	8.54064

1°

′	0′.5		0′.6		0′.7		0′.8		0′.9	
	K_2	A_1	K_2	A_1	K_2	A_1	K_2	A_1	K_2	A_1
	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.	L. Tan.	L. Sin.
0	8.24553	8.24546	8.24624	8.24618	8.24696	8.24689	8.24767	8.24761	8.24839	8.24832
1	8.25265	8.25258	8.25335	8.25328	8.25406	8.25399	8.25476	8.25469	8.25546	8.25539
2	8.25965	8.25958	8.26035	8.26028	8.26104	8.26097	8.26173	8.26166	8.26243	8.26235
3	8.26655	8.26648	8.26723	8.26716	8.26792	8.26784	8.26860	8.26852	8.26928	8.26920
4	8.27334	8.27326	8.27401	8.27393	8.27468	8.27460	8.27535	8.27528	8.27602	8.27595
5	8.28002	8.27994	8.28068	8.28060	8.28134	8.28127	8.28201	8.28193	8.28266	8.28258
6	8.28660	8.28652	8.28725	8.28717	8.28791	8.28782	8.28856	8.28848	8.28921	8.28912
7	8.29309	8.29300	8.29373	8.29364	8.29437	8.29429	8.29501	8.29493	8.29565	8.29557
8	8.29947	8.29939	8.30011	8.30002	8.30074	8.30065	8.30137	8.30129	8.30200	8.30192
9	8.30577	8.30568	8.30639	8.30631	8.30702	8.30693	8.30764	8.30755	8.30826	8.30817
10	8.31198	8.31188	8.31259	8.31250	8.31321	8.31311	8.31382	8.31373	8.31443	8.31434
11	8.31809	8.31800	8.31870	8.31861	8.31931	8.31921	8.31991	8.31982	8.32052	8.32042
12	8.32413	8.32403	8.32473	8.32463	8.32533	8.32523	8.32592	8.32583	8.32652	8.32642
13	8.33008	8.32998	8.33067	8.33057	8.33126	8.33116	8.33185	8.33175	8.33244	8.33234
14	8.33595	8.33585	8.33653	8.33643	8.33712	8.33701	8.33770	8.33759	8.33828	8.33817
15	8.34174	8.34164	8.34232	8.34221	8.34289	8.34279	8.34347	8.34336	8.34404	8.34393
16	8.34746	8.34735	8.34803	8.34792	8.34859	8.34849	8.34916	8.34905	8.34972	8.34962
17	8.35310	8.35299	8.35366	8.35355	8.35422	8.35411	8.35478	8.35467	8.35534	8.35523
18	8.35867	8.35856	8.35922	8.35911	8.35978	8.35966	8.36033	8.36021	8.36088	8.36076
19	8.36417	8.36405	8.36472	8.36460	8.36526	8.36515	8.36581	8.36569	8.36635	8.36623
20	8.36960	8.36948	8.37014	8.37002	8.37068	8.37056	8.37122	8.37110	8.37175	8.37163
21	8.37497	8.37484	8.37550	8.37538	8.37603	8.37591	8.37656	8.37644	8.37709	8.37697
22	8.38026	8.38014	8.38079	8.38066	8.38132	8.38119	8.38184	8.38171	8.38236	8.38224
23	8.38550	8.38537	8.38602	8.38589	8.38654	8.38641	8.38706	8.38693	8.38757	8.38744
24	8.39067	8.39054	8.39118	8.39105	8.39170	8.39157	8.39221	8.39208	8.39272	8.39259
25	8.39578	8.39565	8.39629	8.39616	8.39680	8.39666	8.39730	8.39717	8.39781	8.39767
26	8.40083	8.40070	8.40134	8.40120	8.40184	8.40170	8.40234	8.40220	8.40284	8.40270
27	8.40583	8.40569	8.40632	8.40618	8.40682	8.40668	8.40732	8.40717	8.40781	8.40767
28	8.41077	8.41062	8.41126	8.41111	8.41175	8.41160	8.41224	8.41209	8.41272	8.41258
29	8.41565	8.41550	8.41613	8.41598	8.41662	8.41647	8.41710	8.41695	8.41758	8.41744
30	8.42048	8.42032	8.42095	8.42080	8.42143	8.42128	8.42191	8.42176	8.42239	8.42224
31	8.42525	8.42510	8.42572	8.42557	8.42620	8.42604	8.42667	8.42652	8.42715	8.42699
32	8.42997	8.42982	8.43044	8.43028	8.43091	8.43075	8.43138	8.43122	8.43185	8.43169
33	8.43464	8.43448	8.43511	8.43495	8.43557	8.43541	8.43604	8.43588	8.43650	8.43634
34	8.43927	8.43910	8.43973	8.43956	8.44019	8.44002	8.44064	8.44048	8.44110	8.44094
35	8.44384	8.44367	8.44430	8.44413	8.44475	8.44458	8.44520	8.44504	8.44566	8.44549
36	8.44837	8.44820	8.44882	8.44865	8.44927	8.44910	8.44972	8.44954	8.45016	8.44999
37	8.45285	8.45267	8.45329	8.45312	8.45374	8.45356	8.45418	8.45401	8.45463	8.45445
38	8.45728	8.45710	8.45772	8.45754	8.45816	8.45798	8.45860	8.45842	8.45904	8.45886
39	8.46167	8.46149	8.46211	8.46192	8.46254	8.46236	8.46298	8.46280	8.46341	8.46323
40	8.46602	8.46583	8.46645	8.46626	8.46688	8.46669	8.46731	8.46712	8.46774	8.46755
41	8.47032	8.47013	8.47075	8.47056	8.47117	8.47098	8.47160	8.47141	8.47203	8.47184
42	8.47458	8.47439	8.47500	8.47481	8.47543	8.47523	8.47585	8.47565	8.47627	8.47608
43	8.47880	8.47860	8.47922	8.47902	8.47964	8.47944	8.48006	8.47986	8.48047	8.48028
44	8.48298	8.48278	8.48339	8.48319	8.48381	8.48361	8.48422	8.48402	8.48464	8.48443
45	8.48711	8.48691	8.48753	8.48732	8.48794	8.48773	8.48835	8.48814	8.48876	8.48855
46	8.49121	8.49101	8.49162	8.49141	8.49203	8.49182	8.49244	8.49223	8.49284	8.49263
47	8.49528	8.49506	8.49568	8.49547	8.49608	8.49587	8.49649	8.49627	8.49689	8.49668
48	8.49930	8.49908	8.49970	8.49948	8.50010	8.49988	8.50050	8.50028	8.50090	8.50068
49	8.50329	8.50307	8.50368	8.50346	8.50408	8.50386	8.50448	8.50425	8.50487	8.50465
50	8.50724	8.50701	8.50763	8.50741	8.50802	8.50780	8.50842	8.50819	8.50881	8.50858
51	8.51115	8.51092	8.51154	8.51131	8.51193	8.51170	8.51232	8.51209	8.51271	8.51248
52	8.51503	8.51480	8.51542	8.51519	8.51581	8.51557	8.51619	8.51596	8.51658	8.51634
53	8.51888	8.51864	8.51926	8.51903	8.51964	8.51941	8.52003	8.51979	8.52041	8.52017
54	8.52269	8.52245	8.52307	8.52283	8.52345	8.52321	8.52383	8.52359	8.52421	8.52397
55	8.52647	8.52623	8.52685	8.52660	8.52722	8.52698	8.52760	8.52735	8.52797	8.52773
56	8.53022	8.52997	8.53059	8.53034	8.53096	8.53071	8.53134	8.53109	8.53171	8.53146
57	8.53393	8.53368	8.53430	8.53405	8.53467	8.53442	8.53504	8.53479	8.53541	8.53515
58	8.53762	8.53736	8.53798	8.53772	8.53835	8.53809	8.53872	8.53846	8.53908	8.53882
59	8.54127	8.54101	8.54163	8.54137	8.54200	8.54173	8.54236	8.54210	8.54272	8.54246

2°

′	K_2		A_1	′	K_2		A_1
	L. Tan.	P.P.	L. Sin.		L. Tan.	P.P.	L. Sin.
0	8.54308	177	8.54282	30	8.64009	143	8.63968
.5	8.54489		8.54462	.5	8.64154		8.64112
1	8.54669	35	8.54642	31	8.64298	29	8.64256
.5	8.54848		8.54821	.5	8.64442		8.64400
2	8.55027	71	8.54999	32	8.64585	57	8.64543
.5	8.55205		8.55177	.5	8.64728		8.64685
3	8.55382	106	8.55354	33	8.64870	86	8.64827
.5	8.55558		8.55530	.5	8.65012		8.64969
4	8.55734	142	8.55705	34	8.65154	114	8.65110
.5	8.55909		8.55880	.5	8.65295		8.65251
5	8.56083	170	8.56054	35	8.65435	138	8.65391
.5	8.56256		8.56227	.5	8.65575		8.65531
6	8.56429	34	8.56400	36	8.65715	28	8.65670
.5	8.56601		8.56572	.5	8.65854		8.65809
7	8.56773	68	8.56743	37	8.65993	55	8.65947
.5	8.56944		8.56914	.5	8.66131		8.66085
8	8.57114	102	8.57084	38	8.66269	83	8.66223
.5	8.57283		8.57253	.5	8.66406		8.66360
9	8.57452	136	8.57421	39	8.66543	110	8.66497
.5	8.57620		8.57589	.5	8.66680		8.66633
10	8.57788	164	8.57757	40	8.66816	134	8.66769
.5	8.57955		8.57923	.5	8.66952		8.66904
11	8.58121	33	8.58089	41	8.67087	27	8.67039
.5	8.58286		8.58255	.5	8.67222		8.67174
12	8.58451	66	8.58419	42	8.67356	54	8.67308
.5	8.58616		8.58583	.5	8.67490		8.67442
13	8.58779	98	8.58747	43	8.67624	80	8.67575
.5	8.58943		8.58910	.5	8.67757		8.67708
14	8.59105	131	8.59072	44	8.67890	107	8.67841
.5	8.59267		8.59234	.5	8.68022		8.67973
15	8.59428	158	8.59395	45	8.68154	130	8.68104
.5	8.59589		8.59555	.5	8.68286		8.68236
16	8.59749	32	8.59715	46	8.68417	26	8.68367
.5	8.59909		8.59874	.5	8.68548		8.68497
17	8.60068	63	8.60033	47	8.68678	52	8.68627
.5	8.60226		8.60191	.5	8.68808		8.68757
18	8.60384	95	8.60349	48	8.68938	78	8.68886
.5	8.60541		8.60506	.5	8.69067		8.69015
19	8.60698	126	8.60662	49	8.69196	104	8.69144
.5	8.60854		8.60818	.5	8.69325		8.69272
20	8.61009	153	8.60973	50	8.69453	126	8.69400
.5	8.61164		8.61128	.5	8.69581		8.69527
21	8.61319	31	8.61282	51	8.69708	25	8.69654
.5	8.61473		8.61436	.5	8.69835		8.69781
22	8.61626	61	8.61589	52	8.69962	50	8.69907
.5	8.61779		8.61742	.5	8.70088		8.70033
23	8.61931	92	8.61894	53	8.70214	76	8.70159
.5	8.62083		8.62045	.5	8.70339		8.70284
24	8.62234	122	8.62196	54	8.70465	101	8.70409
.5	8.62385		8.62347	.5	8.70589		8.70534
25	8.62535	147	8.62497	55	8.70714	123	8.70658
.5	8.62685		8.62646	.5	8.70838		8.70781
26	8.62834	29	8.62795	56	8.70962	25	8.70905
.5	8.62983		8.62943	.5	8.71085		8.71028
27	8.63131	59	8.63091	57	8.71208	49	8.71151
.5	8.63278		8.63238	.5	8.71331		8.71273
28	8.63426	88	8.63385	58	8.71453	74	8.71395
.5	8.63572		8.63532	.5	8.71575		8.71517
29	8.63718	118	8.63678	59	8.71697	98	8.71638
.5	8.63864		8.63823	.5	8.71819		8.71759
30	8.64009		8.63968	60	8.71940		8.71880

3°

′	K_2		A_1
	L. Tan.	P.P.	L. Sin.
0	8.71940	119	8.71880
.5	8.72060		8.72000
1	8.72181	24	8.72120
.5	8.72301		8.72240
2	8.72420	48	8.72359
.5	8.72540		8.72478
3	8.72659	71	8.72597
.5	8.72777		8.72716
4	8.72896	95	8.72834
.5	8.73014		8.72951
5	8.73132	116	8.73069
.5	8.73249		8.73186
6	8.73366	23	8.73303
.5	8.73483		8.73419
7	8.73600	46	8.73535
.5	8.73716		8.73651
8	8.73832	70	8.73767
.5	8.73947		8.73882
9	8.74063	93	8.73997
.5	8.74178		8.74112
10	8.74292	113	8.74226
.5	8.74407		8.74340
11	8.74521	23	8.74454
.5	8.74634		8.74567
12	8.74748	45	8.74680
.5	8.74861		8.74793
13	8.74974	68	8.74906
.5	8.75087		8.75018
14	8.75199	90	8.75130
.5	8.75311		8.75241
15	8.75423	110	8.75353
.5	8.75534		8.75464
16	8.75645	22	8.75575
.5	8.75756		8.75685
17	8.75867	44	8.75795
.5	8.75977		8.75905
18	8.76087	66	8.76015
.5	8.76197		8.76125
19	8.76306	88	8.76234
.5	8.76416		8.76343
20	8.76525	107	8.76451
.5	8.76633		8.76559
21	8.76742	21	8.76667
.5	8.76850		8.76775
22	8.76958	43	8.76883
.5	8.77065		8.76990
23	8.77173	64	8.77097
.5	8.77280		8.77204
24	8.77387	86	8.77310
.5	8.77493		8.77416
25	8.77600	105	8.77522
.5	8.77706		8.77628
26	8.77811	21	8.77733
.5	8.77917		8.77838
27	8.78022	42	8.77943
.5	8.78127		8.78048
28	8.78232	63	8.78152
.5	8.78337		8.78257
29	8.78441	84	8.78360
.5	8.78545		8.78464
30	8.78649		8.78568

3°

′	K_2 L. Tan.	P.P.	A_1 L. Sin.
30	8.78649	102	8.78568
.5	8.78752		8.78671
31	8.78855	20	8.78774
.5	8.78958		8.78876
32	8.79061	41	8.78979
.5	8.79164		8.79081
33	8.79266	61	8.79183
.5	8.79368		8.79284
34	8.79470	82	8.79386
.5	8.79572		8.79487
35	8.79673	100	8.79588
.5	8.79774		8.79689
36	8.79875	20	8.79789
.5	8.79976		8.79890
37	8.80076	40	8.79990
.5	8.80177		8.80090
38	8.80277	60	8.80189
.5	8.80376		8.80289
39	8.80476	80	8.80388
.5	8.80575		8.80487
40	8.80674	98	8.80585
.5	8.80773		8.80684
41	8.80872	20	8.80782
.5	8.80970		8.80880
42	8.81068	39	8.80978
.5	8.81166		8.81075
43	8.81264	59	8.81173
.5	8.81362		8.81270
44	8.81459	78	8.81367
.5	8.81556		8.81463
45	8.81653	96	8.81560
.5	8.81750		8.81656
46	8.81846	19	8.81752
.5	8.81942		8.81848
47	8.82038	38	8.81944
.5	8.82134		8.82039
48	8.82230	58	8.82134
.5	8.82325		8.82229
49	8.82420	77	8.82324
.5	8.82515		8.82419
50	8.82610	94	8.82513
.5	8.82705		8.82607
51	8.82799	19	8.82701
.5	8.82893		8.82795
52	8.82987	38	8.82888
.5	8.83081		8.82982
53	8.83175	56	8.83075
.5	8.83268		8.83168
54	8.83361	75	8.83261
.5	8.83454		8.83353
55	8.83547	92	8.83446
.5	8.83640		8.83538
56	8.83732	18	8.83630
.5	8.83824		8.83721
57	8.83916	37	8.83813
.5	8.84008		8.83904
58	8.84100	55	8.83996
.5	8.84191		8.84087
59	8.84282	74	8.84177
.5	8.84374		8.84268
60	8.84464		8.84358

4°

′	K_2 L.Tan.	P.P.	A_1 L. Sin.
0	8.84464	90	8.84358
.5	8.84555		8.84449
1	8.84646	18	8.84539
.5	8.84736		8.84629
2	8.84826	36	8.84718
.5	8.84916		8.84808
3	8.85006	54	8.84897
.5	8.85095		8.84986
4	8.85185	72	8.85075
.5	8.85274		8.85164
5	8.85363	88	8.85252
.5	8.85452		8.85341
6	8.85540	18	8.85429
.5	8.85629		8.85517
7	8.85717	35	8.85605
.5	8.85805		8.85693
8	8.85893	53	8.85780
.5	8.85981		8.85867
9	8.86069	70	8.85955
.5	8.86156		8.86042
10	8.86243	86	8.86128
.5	8.86330		8.86215
11	8.86417	17	8.86301
.5	8.86504		8.86388
12	8.86591	34	8.86474
.5	8.86677		8.86560
13	8.86763	52	8.86645
.5	8.86849		8.86731
14	8.86935	69	8.86816
.5	8.87021		8.86902
15	8.87106	85	8.86987
.5	8.87192		8.87072
16	8.87277	17	8.87156
.5	8.87362		8.87241
17	8.87447	34	8.87325
.5	8.87532		8.87410
18	8.87616	51	8.87494
.5	8.87701		8.87578
19	8.87785	68	8.87661
.5	8.87869		8.87745
20	8.87953	83	8.87829
.5	8.88037		8.87912
21	8.88120	17	8.87995
.5	8.88204		8.88078
22	8.88287	33	8.88161
.5	8.88370		8.88243
23	8.88453	50	8.88326
.5	8.88536		8.88408
24	8.88618	66	8.88490
.5	8.88701		8.88572
25	8.88783	82	8.88654
.5	8.88866		8.88736
26	8.88948	16	8.88817
.5	8.89029		8.88899
27	8.89111	33	8.88980
.5	8.89193		8.89061
28	8.89274	49	8.89142
.5	8.89355		8.89223
29	8.89437	66	8.89304
.5	8.89518		8.89384
30	8.89598		8.89464

4°

′	K_2 L. Tan.	P.P.	A_1 L. Sin.
30	8.89598	80	8.89464
.5	8.89679		8.89545
31	8.89760	16	8.89625
.5	8.89840		8.89704
32	8.89920	32	8.89784
.5	8.90000		8.89864
33	8.90080	48	8.89943
.5	8.90160		8.90023
34	8.90240	64	8.90102
.5	8.90319		8.90181
35	8.90399	79	8.90260
.5	8.90478		8.90338
36	8.90557	16	8.90417
.5	8.90636		8.90495
37	8.90715	32	8.90574
.5	8.90793		8.90652
38	8.90872	47	8.90730
.5	8.90950		8.90808
39	8.91029	63	8.90885
.5	8.91107		8.90963
40	8.91185	77	8.91040
.5	8.91262		8.91118
41	8.91340	15	8.91195
.5	8.91418		8.91272
42	8.91495	31	8.91349
.5	8.91572		8.91426
43	8.91650	46	8.91502
.5	8.91727		8.91579
44	8.91803	62	8.91655
.5	8.91880		8.91731
45	8.91957	76	8.91807
.5	8.92033		8.91883
46	8.92110	15	8.91959
.5	8.92186		8.92035
47	8.92262	30	8.92110
.5	8.92338		8.92186
48	8.92414	46	8.92261
.5	8.92489		8.92336
49	8.92565	61	8.92411
.5	8.92640		8.92486
50	8.92716	75	8.92561
.5	8.92791		8.92636
51	8.92866	15	8.92710
.5	8.92941		8.92784
52	8.93016	30	8.92859
.5	8.93090		8.92933
53	8.93165	45	8.93007
.5	8.93239		8.93081
54	8.93313	60	8.93154
.5	8.93388		8.93228
55	8.93462	73	8.93302
.5	8.93536		8.93375
56	8.93609	15	8.93448
.5	8.93683		8.93521
57	8.93756	29	8.93594
.5	8.93830		8.93667
58	8.93903	44	8.93740
.5	8.93976		8.93812
59	8.94049	58	8.93885
.5	8.94122		8.93957
60	8.94195		8.94030

5°

′	K_2 L. Tan.	P.P.	A_1 L. Sin.
0	8.94195	72	8.94030
.5	8.94268		8.94102
1	8.94340	14	8.94174
.5	8.94413		8.94246
2	8.94485	29	8.94317
.5	8.94557		8.94389
3	8.94630	43	8.94461
.5	8.94702		8.94532
4	8.94773	58	8.94603
.5	8.94845		8.94675
5	8.94917	71	8.94746
.5	8.94988		8.94817
6	8.95060	14	8.94887
.5	8.95131		8.94958
7	8.95202	28	8.95029
.5	8.95273		8.95099
8	8.95344	43	8.95170
.5	8.95415		8.95240
9	8.95486	57	8.95310
.5	8.95556		8.95380
10	8.95627	70	8.95450
.5	8.95697		8.95520
11	8.95767	14	8.95589
.5	8.95838		8.95659
12	8.95908	28	8.95728
.5	8.95977		8.95798
13	8.96047	42	8.95867
.5	8.96117		8.95936
14	8.96187	56	8.96005
.5	8.96256		8.96074
15	8.96325	69	8.96143
.5	8.96395		8.96212
16	8.96464	14	8.96280
.5	8.96533		8.96349
17	8.96602	28	8.96417
.5	8.96671		8.96485
18	8.96739	41	8.96553
.5	8.96808		8.96621
19	8.96877	55	8.96689
.5	8.96945		8.96757
20	8.97013	68	8.96825
.5	8.97081		8.96892
21	8.97150	14	8.96960
.5	8.97218		8.97027
22	8.97285	27	8.97095
.5	8.97353		8.97162
23	8.97421	41	8.97229
.5	8.97488		8.97296
24	8.97556	54	8.97363
.5	8.97623		8.97430
25	8.97691	67	8.97496
.5	8.97758		8.97563
26	8.97825	13	8.97629
.5	8.97892		8.97696
27	8.97959	27	8.97762
.5	8.98025		8.97828
28	8.98092	40	8.97894
.5	8.98159		8.97960
29	8.98225	54	8.98026
.5	8.98291		8.98092
30	8.98358		8.98157

5°

′	K_2 L. Tan.	P.P.	A_1 L. Sin.
30	8.98358	66	8.98157
.5	8.98424		8.98223
31	8.98490	13	8.98288
.5	8.98556		8.98354
32	8.98622	26	8.98419
.5	8.98687		8.98484
33	8.98753	40	8.98549
.5	8.98819		8.98614
34	8.98884	53	8.98679
.5	8.98950		8.98744
35	8.99015	65	8.98808
.5	8.99080		8.98873
36	8.99145	13	8.98937
.5	8.99210		8.99002
37	8.99275	26	8.99066
.5	8.99340		8.99130
38	8.99405	39	8.99194
.5	8.99469		8.99258
39	8.99534	52	8.99322
.5	8.99598		8.99386
40	8.99662	64	8.99450
.5	8.99727		8.99513
41	8.99791	13	8.99577
.5	8.99855		8.99640
42	8.99919	26	8.99704
.5	8.99983		8.99767
43	9.00046	38	8.99830
.5	9.00110		8.99893
44	9.00174	51	8.99956
.5	9.00237		9.00019
45	9.00301	63	9.00082
.5	9.00364		9.00144
46	9.00427	13	9.00207
.5	9.00490		9.00269
47	9.00553	25	9.00332
.5	9.00616		9.00394
48	9.00679	38	9.00456
.5	9.00742		9.00518
49	9.00805	50	9.00581
.5	9.00867		9.00642
50	9.00930	62	9.00704
.5	9.00992		9.00766
51	9.01055	12	9.00828
.5	9.01117		9.00889
52	9.01179	25	9.00951
.5	9.01241		9.01012
53	9.01303	37	9.01074
.5	9.01365		9.01135
54	9.01427	50	9.01196
.5	9.01489		9.01257
55	9.01550	61	9.01318
.5	9.01612		9.01379
56	9.01673	12	9.01440
.5	9.01735		9.01501
57	9.01796	24	9.01561
.5	9.01857		9.01622
58	9.01918	37	9.01682
.5	9.01979		9.01743
59	9.02040	49	9.01803
.5	9.02101		9.01863
60	9.02162		9.01923

6°

′	K_2 L. Tan.	P.P.	A_1 L. Sin.	P.P.
0	9.02162	120	9.01923	119
1	9.02283	12	9.02043	12
2	9.02404	24	9.02163	24
3	9.02525	36	9.02283	36
4	9.02645	48	9.02402	48
5	9.02766	60	9.02520	60
6	9.02885	72	9.02639	71
7	9.03005	84	9.02757	83
8	9.03124	96	9.02874	95
9	9.03242	108	9.02992	107
10	9.03361	117	9.03109	115
11	9.03479	12	9.03226	12
12	9.03597	23	9.03342	23
13	9.03714	35	9.03458	35
14	9.03832	47	9.03574	46
15	9.03948	59	9.03690	58
16	9.04065	70	9.03805	69
17	9.04181	82	9.03920	81
18	9.04297	94	9.04034	92
19	9.04413	105	9.04149	104
20	9.04528	114	9.04262	112
21	9.04643	11	9.04376	11
22	9.04758	23	9.04490	22
23	9.04873	34	9.04603	34
24	9.04987	46	9.04715	45
25	9.05101	57	9.04828	56
26	9.05214	68	9.04940	67
27	9.05328	80	9.05052	78
28	9.05441	91	9.05164	90
29	9.05553	103	9.05275	101
30	9.05666	111	9.05386	109
31	9.05778	11	9.05497	11
32	9.05890	22	9.05607	22
33	9.06002	33	9.05717	33
34	9.06113	44	9.05827	44
35	9.06224	56	9.05937	55
36	9.06335	67	9.06046	65
37	9.06445	78	9.06155	76
38	9.06556	89	9.06264	87
39	9.06666	100	9.06372	98
40	9.06775	108	9.06481	107
41	9.06885	11	9.06589	11
42	9.06994	22	9.06696	21
43	9.07103	32	9.06804	32
44	9.07211	43	9.06911	43
45	9.07320	54	9.07018	54
46	9.07428	65	9.07124	64
47	9.07536	76	9.07231	75
48	9.07643	86	9.07337	86
49	9.07751	97	9.07442	96
50	9.07858	106	9.07548	104
51	9.07964	11	9.07653	10
52	9.08071	21	9.07758	21
53	9.08177	32	9.07863	31
54	9.08283	42	9.07968	42
55	9.08389	53	9.08072	52
56	9.08495	64	9.08176	62
57	9.08600	74	9.08280	73
58	9.08705	85	9.08383	83
59	9.08810	95	9.08486	94
60	9.08914		9.08589	

′	7°				8°				9°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.08914	**103**	9.08589	**102**	9.14780	**91**	9.14356	**89**	9.19971	**81**	9.19433	**79**
1	9.09019	10	9.08692	10	9.14872	9	9.14445	9	9.20053	8	9.19513	8
2	9.09123	21	9.08795	20	9.14963	18	9.14535	18	9.20134	16	9.19592	16
3	9.09227	31	9.08897	31	9.15054	27	9.14624	27	9.20216	24	9.19672	24
4	9.09330	41	9.08999	41	9.15145	36	9.14714	36	9.20297	32	9.19751	32
5	9.09434	52	9.09101	51	9.15236	46	9.14803	45	9.20378	41	9.19830	40
6	9.09537	62	9.09202	61	9.15327	55	9.14891	53	9.20459	49	9.19909	47
7	9.09640	72	9.09304	71	9.15417	64	9.14980	62	9.20540	57	9.19988	55
8	9.09742	82	9.09405	82	9.15508	73	9.15069	71	9.20621	65	9.20067	63
9	9.09845	93	9.09506	92	9.15598	82	9.15157	80	9.20701	73	9.20145	71
10	9.09947	**101**	9.09606	**99**	9.15688	**89**	9.15245	**87**	9.20782	**80**	9.20223	**78**
11	9.10049	10	9.09707	10	9.15777	9	9.15333	9	9.20862	8	9.20302	8
12	9.10150	20	9.09807	20	9.15867	18	9.15421	17	9.20942	16	9.20380	16
13	9.10252	30	9.09907	30	9.15956	27	9.15508	26	9.21022	24	9.20458	23
14	9.10353	40	9.10006	40	9.16046	36	9.15596	35	9.21102	32	9.20535	31
15	9.10454	51	9.10106	50	9.16135	45	9.15683	44	9.21182	40	9.20613	39
16	9.10555	61	9.10205	59	9.16224	53	9.15770	52	9.21261	48	9.20691	47
17	9.10656	71	9.10304	69	9.16312	62	9.15857	61	9.21341	56	9.20768	55
18	9.10756	81	9.10402	79	9.16401	71	9.15944	70	9.21420	64	9.20845	62
19	9.10856	91	9.10501	89	9.16489	80	9.16030	78	9.21499	72	9.20922	70
20	9.10956	**99**	9.10599	**97**	9.16577	**87**	9.16116	**85**	9.21578	**78**	9.20999	**76**
21	9.11056	10	9.10697	10	9.16665	9	9.16203	9	9.21657	8	9.21076	8
22	9.11155	20	9.10795	19	9.16753	17	9.16289	17	9.21736	16	9.21153	15
23	9.11254	30	9.10893	29	9.16841	26	9.16374	26	9.21814	23	9.21229	23
24	9.11353	40	9.10990	39	9.16928	35	9.16460	34	9.21893	31	9.21306	30
25	9.11452	50	9.11087	49	9.17016	44	9.16545	43	9.21971	39	9.21382	38
26	9.11551	59	9.11184	58	9.17103	52	9.16631	51	9.22049	47	9.21458	46
27	9.11649	69	9.11281	68	9.17190	61	9.16716	60	9.22127	55	9.21534	53
28	9.11747	79	9.11377	78	9.17277	70	9.16801	68	9.22205	62	9.21610	61
29	9.11845	89	9.11474	87	9.17363	78	9.16886	77	9.22283	70	9.21685	68
30	9.11943	**97**	9.11570	**95**	9.17450	**86**	9.16970	**84**	9.22361	**77**	9.21761	**75**
31	9.12040	10	9.11666	10	9.17536	9	9.17055	8	9.22438	8	9.21836	8
32	9.12138	19	9.11761	19	9.17622	17	9.17139	17	9.22516	15	9.21912	15
33	9.12235	29	9.11857	29	9.17708	26	9.17223	25	9.22593	23	9.21987	23
34	9.12332	39	9.11952	38	9.17794	34	9.17307	34	9.22670	31	9.22062	30
35	9.12428	49	9.12047	48	9.17880	43	9.17391	42	9.22747	39	9.22137	38
36	9.12525	58	9.12142	57	9.17965	52	9.17474	50	9.22824	46	9.22211	45
37	9.12621	68	9.12236	67	9.18051	60	9.17558	59	9.22901	54	9.22286	53
38	9.12717	78	9.12331	76	9.18136	69	9.17641	67	9.22977	62	9.22361	60
39	9.12813	87	9.12425	86	9.18221	77	9.17724	76	9.23054	69	9.22435	68
40	9.12909	**95**	9.12519	**93**	9.18306	**84**	9.17807	**82**	9.23130	**76**	9.22509	**74**
41	9.13004	10	9.12612	9	9.18391	8	9.17890	8	9.23206	8	9.22583	7
42	9.13099	19	9.12706	19	9.18475	17	9.17973	16	9.23283	15	9.22657	15
43	9.13194	29	9.12799	28	9.18560	25	9.18055	25	9.23359	23	9.22731	22
44	9.13289	38	9.12892	37	9.18644	34	9.18137	33	9.23435	30	9.22805	30
45	9.13384	48	9.12985	47	9.18728	42	9.18220	41	9.23510	38	9.22878	37
46	9.13478	57	9.13078	56	9.18812	50	9.18302	49	9.23586	46	9.22952	44
47	9.13573	67	9.13171	65	9.18896	59	9.18383	57	9.23661	53	9.23025	52
48	9.13667	76	9.13263	74	9.18979	67	9.18465	66	9.23737	61	9.23098	59
49	9.13761	86	9.13355	84	9.19063	76	9.18547	74	9.23812	68	9.23171	67
50	9.13854	**93**	9.13447	**91**	9.19146	**83**	9.18628	**81**	9.23887	**74**	9.23244	**72**
51	9.13948	9	9.13539	9	9.19229	8	9.18709	8	9.23962	7	9.23317	7
52	9.14041	19	9.13630	18	9.19312	17	9.18790	16	9.24037	15	9.23390	14
53	9.14134	28	9.13722	27	9.19395	25	9.18871	24	9.24112	22	9.23462	22
54	9.14227	37	9.13813	36	9.19478	33	9.18952	32	9.24186	30	9.23535	29
55	9.14320	47	9.13904	46	9.19561	42	9.19033	41	9.24261	37	9.23607	36
56	9.14412	56	9.13994	55	9.19643	50	9.19113	49	9.24335	44	9.23679	43
57	9.14504	65	9.14085	64	9.19725	58	9.19193	57	9.24410	52	9.23752	50
58	9.14597	74	9.14175	73	9.19807	66	9.19273	65	9.24484	59	9.23823	58
59	9.14688	84	9.14266	82	9.19889	75	9.19353	73	9.24558	67	9.23895	65
60	9.14780		9.14356		9.19971		9.19433		9.24632		9.23967	

′	10°				11°				12°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.24632	**73**	9.23967	**71**	9.28865	**67**	9.28060	**64**	9.32747	**62**	9.31788	**59**
1	9.24706	7	9.24039	7	9.28933	7	9.28125	6	9.32810	6	9.31847	6
2	9.24779	15	9.24110	14	9.29000	13	9.28190	13	9.32872	12	9.31907	12
3	9.24853	22	9.24181	21	9.29067	20	9.28254	19	9.32933	19	9.31966	18
4	9.24926	29	9.24253	28	9.29134	27	9.28319	26	9.32995	25	9.32025	24
5	9.25000	37	9.24324	36	9.29201	34	9.28384	32	9.33057	31	9.32084	30
6	9.25073	44	9.24395	43	9.29268	40	9.28448	38	9.33119	37	9.32143	35
7	9.25146	51	9.24466	50	9.29335	47	9.28512	45	9.33180	43	9.32202	41
8	9.25219	58	9.24536	57	9.29402	54	9.28577	51	9.33242	50	9.32261	47
9	9.25292	66	9.24607	64	9.29468	60	9.28641	58	9.33303	56	9.32319	53
10	9.25365	**72**	9.24677	**70**	9.29535	**66**	9.28705	**64**	9.33365	**61**	9.32378	**58**
11	9.25437	7	9.24748	7	9.29601	7	9.28769	6	9.33426	6	9.32437	6
12	9.25510	14	9.24818	14	9.29668	13	9.28833	13	9.33487	12	9.32495	12
13	9.25582	22	9.24888	21	9.29734	20	9.28896	19	9.33548	18	9.32553	17
14	9.25655	29	9.24958	28	9.29800	26	9.28960	26	9.33609	24	9.32612	23
15	9.25727	36	9.25028	35	9.29866	33	9.29024	32	9.33670	31	9.32670	29
16	9.25799	43	9.25098	42	9.29932	40	9.29087	38	9.33731	37	9.32728	35
17	9.25871	50	9.25168	49	9.29998	46	9.29150	45	9.33792	43	9.32786	41
18	9.25943	58	9.25237	56	9.30064	53	9.29214	51	9.33853	49	9.32844	46
19	9.26015	65	9.25307	63	9.30130	59	9.29277	58	9.33913	55	9.32902	52
20	9.26086	**71**	9.25376	**69**	9.30195	**65**	9.29340	**63**	9.33974	**60**	9.32960	**57**
21	9.26158	7	9.25445	7	9.30261	7	9.29403	6	9.34034	6	9.33018	6
22	9.26229	14	9.25514	14	9.30326	13	9.29466	13	9.34095	12	9.33075	11
23	9.26301	21	9.25583	21	9.30391	20	9.29529	19	9.34155	18	9.33133	17
24	9.26372	28	9.25652	28	9.30457	26	9.29591	25	9.34215	24	9.33190	23
25	9.26443	36	9.25721	35	9.30522	33	9.29654	32	9.34276	30	9.33248	29
26	9.26514	43	9.25790	41	9.30587	39	9.29716	38	9.34336	36	9.33305	34
27	9.26585	50	9.25858	48	9.30652	46	9.29779	44	9.34396	42	9.33362	40
28	9.26655	57	9.25927	55	9.30717	52	9.29841	50	9.34456	48	9.33420	46
29	9.26726	64	9.25995	62	9.30782	59	9.29903	57	9.34516	54	9.33477	51
30	9.26797	**70**	9.26063	**68**	9.30846	**64**	9.29966	**62**	9.34576	**59**	9.33534	**57**
31	9.26867	7	9.26131	7	9.30911	6	9.30028	6	9.34635	6	9.33591	6
32	9.26937	14	9.26199	14	9.30975	13	9.30090	12	9.34695	12	9.33647	11
33	9.27008	21	9.26267	20	9.31040	19	9.30151	19	9.34755	18	9.33704	17
34	9.27078	28	9.26335	27	9.31104	26	9.30213	25	9.34814	24	9.33761	23
35	9.27148	35	9.26403	34	9.31168	32	9.30275	31	9.34874	30	9.33818	29
36	9.27218	42	9.26470	41	9.31233	38	9.30336	37	9.34933	35	9.33874	34
37	9.27288	49	9.26538	48	9.31297	45	9.30398	43	9.34992	41	9.33931	40
38	9.27357	56	9.26605	54	9.31361	51	9.30459	50	9.35051	47	9.33987	46
39	9.27427	63	9.26672	61	9.31425	58	9.30521	56	9.35111	53	9.34043	51
40	9.27496	**69**	9.26739	**67**	9.31489	**63**	9.30582	**61**	9.35170	**59**	9.34100	**56**
41	9.27566	7	9.26806	7	9.31552	6	9.30643	6	9.35229	6	9.34156	6
42	9.27635	14	9.26873	13	9.31616	13	9.30704	12	9.35288	12	9.34212	11
43	9.27704	21	9.26940	20	9.31679	19	9.30765	18	9.35347	18	9.34268	17
44	9.27773	28	9.27007	27	9.31743	25	9.30826	24	9.35405	24	9.34324	22
45	9.27842	35	9.27073	34	9.31806	32	9.30887	31	9.35464	30	9.34380	28
46	9.27911	41	9.27140	40	9.31870	38	9.30947	37	9.35523	35	9.34436	34
47	9.27980	48	9.27206	47	9.31933	44	9.31008	43	9.35581	41	9.34491	39
48	9.28049	55	9.27273	54	9.31996	50	9.31068	49	9.35640	47	9.34547	45
49	9.28117	62	9.27339	60	9.32059	57	9.31129	55	9.35698	53	9.34602	50
50	9.28186	**68**	9.27405	**66**	9.32122	**63**	9.31189	**60**	9.35757	**58**	9.34658	**55**
51	9.28254	7	9.27471	7	9.32185	6	9.31250	6	9.35815	6	9.34713	6
52	9.28323	14	9.27537	13	9.32248	13	9.31310	12	9.35873	12	9.34769	11
53	9.28391	20	9.27602	20	9.32311	19	9.31370	18	9.35931	17	9.34824	17
54	9.28459	27	9.27668	26	9.32373	25	9.31430	24	9.35989	23	9.34879	22
55	9.28527	34	9.27734	33	9.32436	32	9.31490	30	9.36047	29	9.34934	28
56	9.28595	41	9.27799	40	9.32498	38	9.31549	36	9.36105	35	9.34989	33
57	9.28662	48	9.27864	46	9.32561	44	9.31609	42	9.36163	41	9.35044	39
58	9.28730	54	9.27930	53	9.32623	50	9.31669	48	9.36221	46	9.35099	44
59	9.28798	61	9.27995	59	9.32685	57	9.31728	54	9.36279	52	9.35154	50
60	9.28865		9.28060		9.32747		9.31788		9.36336		9.35209	

′	13°				14°				15°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.36336	**57**	9.35209	**54**	9.39677	**54**	9.38368	**50**	9.42805	**50**	9.41300	**47**
1	9.36394	6	9.35263	5	9.39731	5	9.38418	5	9.42856	5	9.41347	5
2	9.36452	11	9.35318	11	9.39785	11	9.38469	10	9.42906	10	9.41394	9
3	9.36509	17	9.35373	16	9.39838	16	9.38519	15	9.42957	15	9.41441	14
4	9.36566	23	9.35427	22	9.39892	22	9.38570	20	9.43007	20	9.41488	19
5	9.36624	29	9.35481	27	9.39945	27	9.38620	25	9.43057	25	9.41535	24
6	9.36681	34	9.35536	32	9.39999	32	9.38670	30	9.43108	30	9.41582	28
7	9.36738	40	9.35590	38	9.40052	38	9.38721	35	9.43158	35	9.41628	33
8	9.36795	46	9.35644	43	9.40106	43	9.38771	40	9.43208	40	9.41675	38
9	9.36852	51	9.35698	49	9.40159	49	9.38821	45	9.43258	45	9.41722	42
10	9.36909	**57**	9.35752	**54**	9.40212	**53**	9.38871	**50**	9.43308	**50**	9.41768	**46**
11	9.36966	6	9.35806	5	9.40266	5	9.38921	5	9.43358	5	9.41815	5
12	9.37023	11	9.35860	11	9.40319	11	9.38971	10	9.43408	10	9.41861	9
13	9.37080	17	9.35914	16	9.40372	16	9.39021	15	9.43458	15	9.41908	14
14	9.37137	23	9.35968	22	9.40425	21	9.39071	20	9.43508	20	9.41954	18
15	9.37193	29	9.36022	27	9.40478	27	9.39121	25	9.43558	25	9.42001	23
16	9.37250	34	9.36075	32	9.40531	32	9.39170	30	9.43607	30	9.42047	28
17	9.37306	40	9.36129	38	9.40584	37	9.39220	35	9.43657	35	9.42093	32
18	9.37363	46	9.36182	43	9.40636	42	9.39270	40	9.43707	40	9.42140	37
19	9.37419	51	9.36236	49	9.40689	48	9.39319	45	9.43756	45	9.42186	41
20	9.37476	**56**	9.36289	**53**	9.40742	**52**	9.39369	**49**	9.43806	**49**	9.42232	**46**
21	9.37532	6	9.36342	5	9.40795	5	9.39418	5	9.43855	5	9.42278	5
22	9.37588	11	9.36395	11	9.40847	10	9.39467	10	9.43905	10	9.42324	9
23	9.37644	17	9.36449	16	9.40900	16	9.39517	15	9.43954	15	9.42370	14
24	9.37700	22	9.36502	21	9.40952	21	9.39566	20	9.44004	20	9.42416	18
25	9.37756	28	9.36555	27	9.41005	26	9.39615	25	9.44053	25	9.42461	23
26	9.37812	34	9.36608	32	9.41057	31	9.39664	29	9.44102	29	9.42507	28
27	9.37868	39	9.36660	37	9.41109	36	9.39713	34	9.44151	34	9.42553	32
28	9.37924	45	9.36713	42	9.41161	42	9.39762	39	9.44201	39	9.42599	37
29	9.37980	50	9.36766	48	9.41214	47	9.39811	44	9.44250	44	9.42644	41
30	9.38035	**55**	9.36819	**52**	9.41266	**52**	9.39860	**49**	9.44299	**49**	9.42690	**45**
31	9.38091	6	9.36871	5	9.41318	5	9.39909	5	9.44348	5	9.42735	5
32	9.38147	11	9.36924	10	9.41370	10	9.39958	10	9.44397	10	9.42781	9
33	9.38202	17	9.36976	16	9.41422	16	9.40006	15	9.44446	15	9.42826	14
34	9.38257	22	9.37028	21	9.41474	21	9.40055	20	9.44495	20	9.42872	18
35	9.38313	28	9.37081	26	9.41526	26	9.40103	25	9.44544	25	9.42917	23
36	9.38368	33	9.37133	31	9.41578	31	9.40152	29	9.44592	29	9.42962	27
37	9.38423	39	9.37185	36	9.41629	36	9.40200	34	9.44641	34	9.43008	32
38	9.38479	44	9.37237	42	9.41681	42	9.40249	39	9.44690	39	9.43053	36
39	9.38534	50	9.37289	47	9.41733	47	9.40297	44	9.44738	44	9.43098	41
40	9.38589	**55**	9.37341	**52**	9.41784	**51**	9.40346	**48**	9.44787	**48**	9.43143	**45**
41	9.38644	6	9.37393	5	9.41836	5	9.40394	5	9.44836	5	9.43188	5
42	9.38699	11	9.37445	10	9.41887	10	9.40442	10	9.44884	10	9.43233	9
43	9.38754	17	9.37497	16	9.41939	15	9.40490	14	9.44933	14	9.43278	14
44	9.38808	22	9.37549	21	9.41990	20	9.40538	19	9.44981	19	9.43323	18
45	9.38863	28	9.37600	26	9.42041	26	9.40586	24	9.45029	24	9.43367	23
46	9.38918	33	9.37652	31	9.42093	31	9.40634	29	9.45078	29	9.43412	27
47	9.38972	39	9.37703	36	9.42144	36	9.40682	34	9.45126	34	9.43457	32
48	9.39027	44	9.37755	42	9.42195	41	9.40730	38	9.45174	38	9.43502	36
49	9.39082	50	9.37806	47	9.42246	46	9.40778	43	9.45222	43	9.43546	41
50	9.39136	**54**	9.37858	**51**	9.42297	**51**	9.40825	**47**	9.45271	**48**	9.43591	**44**
51	9.39190	5	9.37909	5	9.42348	5	9.40873	5	9.45319	5	9.43635	4
52	9.39245	11	9.37960	10	9.42399	10	9.40921	9	9.45367	10	9.43680	9
53	9.39299	16	9.38011	15	9.42450	15	9.40968	14	9.45415	14	9.43724	13
54	9.39353	22	9.38062	20	9.42501	20	9.41016	19	9.45463	19	9.43769	18
55	9.39407	27	9.38113	26	9.42552	26	9.41063	24	9.45511	24	9.43813	22
56	9.39461	32	9.38164	31	9.42603	31	9.41111	28	9.45559	29	9.43857	26
57	9.39515	38	9.38215	36	9.42653	36	9.41158	33	9.45606	34	9.43901	31
58	9.39569	43	9.38266	41	9.42704	41	9.41205	38	9.45654	38	9.43946	35
59	9.39623	49	9.38317	46	9.42755	46	9.41252	42	9.45702	43	9.43990	40
60	9.39677		9.38368		9.42805		9.41300		9.45750		9.44034	

′	16°				17°				18°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.45750	**47**	9.44034	**44**	9.48534	**45**	9.46594	**41**	9.51178	**43**	9.48998	**39**
1	9.45797	5	9.44078	4	9.48579	5	9.46635	4	9.51221	4	9.49037	4
2	9.45845	9	9.44122	9	9.48624	9	9.46676	8	9.51264	9	9.49076	8
3	9.45892	14	9.44166	13	9.48669	14	9.46717	12	9.51306	13	9.49115	12
4	9.45940	19	9.44210	18	9.48714	18	9.46758	16	9.51349	17	9.49153	16
5	9.45987	24	9.44253	22	9.48759	23	9.46800	21	9.51392	22	9.49192	20
6	9.46035	28	9.44297	26	9.48804	27	9.46841	25	9.51435	26	9.49231	23
7	9.46082	33	9.44341	31	9.48849	32	9.46882	29	9.51478	30	9.49269	27
8	9.46130	38	9.44385	35	9.48894	36	9.46923	33	9.51520	34	9.49308	31
9	9.46177	42	9.44428	40	9.48939	41	9.46964	37	9.51563	39	9.49347	35
10	9.46224	**47**	9.44472	**43**	9.48984	**45**	9.47005	**41**	9.51606	**42**	9.49385	**38**
11	9.46271	5	9.44516	4	9.49029	5	9.47045	4	9.51648	4	9.49424	4
12	9.46319	9	9.44559	9	9.49073	9	9.47086	8	9.51691	8	9.49462	8
13	9.46366	14	9.44602	13	9.49118	14	9.47127	12	9.51734	13	9.49500	11
14	9.46413	19	9.44646	17	9.49163	18	9.47168	16	9.51776	17	9.49539	15
15	9.46460	24	9.44689	22	9.49207	23	9.47209	21	9.51819	21	9.49577	19
16	9.46507	28	9.44733	26	9.49252	27	9.47249	25	9.51861	25	9.49615	23
17	9.46554	33	9.44776	30	9.49296	32	9.47290	29	9.51903	29	9.49654	27
18	9.46601	38	9.44819	34	9.49341	36	9.47330	33	9.51946	34	9.49692	30
19	9.46648	42	9.44862	39	9.49385	41	9.47371	37	9.51988	38	9.49730	34
20	9.46694	**47**	9.44905	**43**	9.49430	**44**	9.47411	**40**	9.52031	**42**	9.49768	**38**
21	9.46741	5	9.44948	4	9.49474	4	9.47452	4	9.52073	4	9.49806	4
22	9.46788	9	9.44992	9	9.49519	9	9.47492	8	9.52115	8	9.49844	8
23	9.46835	14	9.45035	13	9.49563	13	9.47533	12	9.52157	13	9.49882	11
24	9.46881	19	9.45077	17	9.49607	18	9.47573	16	9.52200	17	9.49920	15
25	9.46928	24	9.45120	22	9.49652	22	9.47613	20	9.52242	21	9.49958	19
26	9.46975	28	9.45163	26	9.49696	26	9.47654	24	9.52284	25	9.49996	23
27	9.47021	33	9.45206	30	9.49740	31	9.47694	28	9.52326	29	9.50034	27
28	9.47068	38	9.45249	34	9.49784	35	9.47734	32	9.52368	34	9.50072	30
29	9.47114	42	9.45292	39	9.49828	40	9.47774	36	9.52410	38	9.50110	34
30	9.47160	**46**	9.45334	**42**	9.49872	**44**	9.47814	**40**	9.52452	**42**	9.50148	**38**
31	9.47207	5	9.45377	4	9.49916	4	9.47854	4	9.52494	4	9.50185	4
32	9.47253	9	9.45419	8	9.49960	9	9.47894	8	9.52536	8	9.50223	8
33	9.47299	14	9.45462	13	9.50004	13	9.47934	12	9.52578	13	9.50261	11
34	9.47346	18	9.45504	17	9.50048	18	9.47974	16	9.52620	17	9.50298	15
35	9.47392	23	9.45547	21	9.50092	22	9.48014	20	9.52661	21	9.50336	19
36	9.47438	28	9.45589	25	9.50136	26	9.48054	24	9.52703	25	9.50374	23
37	9.47484	32	9.45632	29	9.50180	31	9.48094	28	9.52745	29	9.50411	27
38	9.47530	37	9.45674	34	9.50223	35	9.48133	32	9.52787	34	9.50449	30
39	9.47576	41	9.45716	38	9.50267	40	9.48173	36	9.52829	38	9.50486	34
40	9.47622	**46**	9.45758	**42**	9.50311	**44**	9.48213	**39**	9.52870	**42**	9.50523	**37**
41	9.47668	5	9.45801	4	9.50355	4	9.48252	4	9.52912	4	9.50561	4
42	9.47714	9	9.45843	8	9.50398	9	9.48292	8	9.52953	8	9.50598	7
43	9.47760	14	9.45885	13	9.50442	13	9.48332	12	9.52995	13	9.50635	11
44	9.47806	18	9.45927	17	9.50485	18	9.48371	16	9.53037	17	9.50673	15
45	9.47852	23	9.45969	21	9.50529	22	9.48411	20	9.53078	21	9.50710	19
46	9.47897	28	9.46011	25	9.50572	26	9.48450	23	9.53120	25	9.50747	22
47	9.47943	32	9.46053	29	9.50616	31	9.48490	27	9.53161	29	9.50784	26
48	9.47989	37	9.46095	34	9.50659	35	9.48529	31	9.53202	34	9.50821	30
49	9.48035	41	9.46136	38	9.50703	40	9.48568	35	9.53244	38	9.50858	33
50	9.48080	**45**	9.46178	**42**	9.50746	**43**	9.48607	**39**	9.53285	**41**	9.50896	**37**
51	9.48126	5	9.46220	4	9.50789	4	9.48647	4	9.53327	4	9.50933	4
52	9.48171	9	9.46262	8	9.50833	9	9.48686	8	9.53368	8	9.50970	7
53	9.48217	14	9.46303	13	9.50876	13	9.48725	12	9.53409	12	9.51007	11
54	9.48262	18	9.46345	17	9.50919	17	9.48764	16	9.53450	16	9.51043	15
55	9.48307	23	9.46386	21	9.50962	22	9.48803	20	9.53492	21	9.51080	19
56	9.48353	27	9.46428	25	9.51005	26	9.48842	23	9.53533	25	9.51117	22
57	9.48398	32	9.46469	29	9.51048	30	9.48881	27	9.53574	29	9.51154	26
58	9.48443	36	9.46511	34	9.51092	34	9.48920	31	9.53615	33	9.51191	30
59	9.48489	41	9.46552	38	9.51135	39	9.48959	35	9.53656	37	9.51227	33
60	9.48534		9.46594		9.51178		9.48998		9.53697		9.51264	

′	19°				20°				21°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.53697	41	9.51264	37	9.56107	39	9.53405	35	9.58418	38	9.55433	33
1	9.53738	4	9.51301	4	9.56146	4	9.53440	4	9.58455	4	9.55466	3
2	9.53779	8	9.51338	7	9.56185	8	9.53475	7	9.58493	8	9.55499	7
3	9.53820	12	9.51374	11	9.56224	12	9.53509	11	9.58531	11	9.55532	10
4	9.53861	16	9.51411	15	9.56264	16	9.53544	14	9.58569	15	9.55564	13
5	9.53902	21	9.51447	19	9.56303	20	9.53578	18	9.58606	19	9.55597	17
6	9.53943	25	9.51484	22	9.56342	23	9.53613	21	9.58644	23	9.55630	20
7	9.53984	29	9.51520	26	9.56381	27	9.53647	25	9.58681	27	9.55663	23
8	9.54025	33	9.51557	30	9.56420	31	9.53682	28	9.58719	30	9.55695	26
9	9.54065	37	9.51593	33	9.56459	35	9.53716	32	9.58757	34	9.55728	30
10	9.54106	41	9.51629	36	9.56498	39	9.53751	34	9.58794	37	9.55761	32
11	9.54147	4	9.51666	4	9.56537	4	9.53785	3	9.58832	4	9.55793	3
12	9.54187	8	9.51702	7	9.56576	8	9.53819	7	9.58869	7	9.55826	6
13	9.54228	12	9.51738	11	9.56615	12	9.53854	10	9.58907	11	9.55858	10
14	9.54269	16	9.51774	14	9.56654	16	9.53888	14	9.58944	15	9.55891	13
15	9.54309	21	9.51811	18	9.56693	20	9.53922	17	9.58981	19	9.55923	16
16	9.54350	25	9.51847	22	9.56732	23	9.53957	20	9.59019	22	9.55956	19
17	9.54390	29	9.51883	25	9.56771	27	9.53991	24	9.59056	26	9.55988	22
18	9.54431	33	9.51919	29	9.56810	31	9.54025	27	9.59094	30	9.56021	26
19	9.54471	37	9.51955	32	9.56849	35	9.54059	31	9.59131	33	9.56053	29
20	9.54512	40	9.51991	36	9.56887	39	9.54093	34	9.59168	37	9.56085	32
21	9.54552	4	9.52027	4	9.56926	4	9.54127	3	9.59205	4	9.56118	3
22	9.54593	8	9.52063	7	9.56965	8	9.54161	7	9.59243	7	9.56150	6
23	9.54633	12	9.52099	11	9.57004	12	9.54195	10	9.59280	11	9.56182	10
24	9.54673	16	9.52135	14	9.57042	16	9.54229	14	9.59317	15	9.56215	13
25	9.54714	20	9.52171	18	9.57081	20	9.54263	17	9.59354	19	9.56247	16
26	9.54754	24	9.52207	22	9.57120	23	9.54297	20	9.59391	22	9.56279	19
27	9.54794	28	9.52242	25	9.57158	27	9.54331	24	9.59429	26	9.56311	22
28	9.54835	32	9.52278	29	9.57197	31	9.54365	27	9.59466	30	9.56343	26
29	9.54875	36	9.52314	32	9.57235	35	9.54399	31	9.59503	33	9.56375	29
30	9.54915	40	9.52350	36	9.57274	38	9.54433	34	9.59540	37	9.56408	32
31	9.54955	4	9.52385	4	9.57312	4	9.54466	3	9.59577	4	9.56440	3
32	9.54995	8	9.52421	7	9.57351	8	9.54500	7	9.59614	7	9.56472	6
33	9.55035	12	9.52456	11	9.57389	11	9.54534	10	9.59651	11	9.56504	10
34	9.55075	16	9.52492	14	9.57428	15	9.54567	14	9.59688	15	9.56536	13
35	9.55115	20	9.52527	18	9.57466	19	9.54601	17	9.59725	19	9.56568	16
36	9.55155	24	9.52563	22	9.57504	23	9.54635	20	9.59762	22	9.56599	19
37	9.55195	28	9.52598	25	9.57543	27	9.54668	24	9.59799	26	9.56631	22
38	9.55235	32	9.52634	29	9.57581	30	9.54702	27	9.59835	30	9.56663	26
39	9.55275	36	9.52669	32	9.57619	34	9.54735	31	9.59872	33	9.56695	29
40	9.55315	40	9.52705	35	9.57658	38	9.54769	33	9.59909	37	9.56727	32
41	9.55355	4	9.52740	4	9.57696	4	9.54802	3	9.59946	4	9.56759	3
42	9.55395	8	9.52775	7	9.57734	8	9.54836	7	9.59983	7	9.56790	6
43	9.55434	12	9.52811	11	9.57772	11	9.54869	10	9.60019	11	9.56822	10
44	9.55474	16	9.52846	14	9.57810	15	9.54903	13	9.60056	15	9.56854	13
45	9.55514	20	9.52881	18	9.57849	19	9.54936	17	9.60093	19	9.56886	16
46	9.55554	24	9.52916	21	9.57887	23	9.54969	20	9.60130	22	9.56917	19
47	9.55593	28	9.52951	25	9.57925	27	9.55003	23	9.60166	26	9.56949	22
48	9.55633	32	9.52986	28	9.57963	30	9.55036	26	9.60203	30	9.56980	26
49	9.55673	36	9.53021	32	9.58001	34	9.55069	30	9.60240	33	9.57012	29
50	9.55712	39	9.53056	35	9.58039	38	9.55102	33	9.60276	36	9.57044	31
51	9.55752	4	9.53092	4	9.58077	4	9.55136	3	9.60313	4	9.57075	3
52	9.55791	8	9.53126	7	9.58115	8	9.55169	7	9.60349	7	9.57107	6
53	9.55831	12	9.53161	11	9.58153	11	9.55202	10	9.60386	11	9.57138	9
54	9.55870	16	9.53196	14	9.58191	15	9.55235	13	9.60422	14	9.57169	12
55	9.55910	20	9.53231	18	9.58229	19	9.55268	17	9.60459	18	9.57201	16
56	9.55949	23	9.53266	21	9.58267	23	9.55301	20	9.60495	22	9.57232	19
57	9.55989	27	9.53301	25	9.58304	27	9.55334	23	9.60532	25	9.57264	22
58	9.56028	31	9.53336	28	9.58342	30	9.55367	26	9.60568	29	9.57295	25
59	9.56067	35	9.53370	32	9.58380	34	9.55400	30	9.60605	32	9.57326	28
60	9.56107		9.53405		9.58418		9.55433		9.60641		9.57358	

′	22°				23°				24°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.60641	36	9.57358	31	9.62785	35	9.59188	30	9.64858	34	9.60931	28
1	9.60677	4	9.57389	3	9.62820	4	9.59218	3	9.64892	3	9.60960	3
2	9.60714	7	9.57420	6	9.62855	7	9.59247	6	9.64926	7	9.60988	6
3	9.60750	11	9.57451	9	9.62890	11	9.59277	9	9.64960	10	9.61016	8
4	9.60786	14	9.57482	12	9.62926	14	9.59307	12	9.64994	14	9.61045	11
5	9.60823	18	9.57514	16	9.62961	18	9.59336	15	9.65028	17	9.61073	14
6	9.60859	22	9.57545	19	9.62996	21	9.59366	18	9.65062	20	9.61101	17
7	9.60895	25	9.57576	22	9.63031	25	9.59396	21	9.65096	24	9.61129	20
8	9.60931	29	9.57607	25	9.63066	28	9.59425	24	9.65130	27	9.61158	22
9	9.60967	32	9.57638	28	9.63101	32	9.59455	27	9.65164	31	9.61186	25
10	9.61004	36	9.57669	31	9.63135	35	9.59484	29	9.65197	34	9.61214	28
11	9.61040	4	9.57700	3	9.63170	4	9.59514	3	9.65231	3	9.61242	3
12	9.61076	7	9.57731	6	9.63205	7	9.59543	6	9.65265	7	9.61270	6
13	9.61112	11	9.57762	9	9.63240	11	9.59573	9	9.65299	10	9.61298	8
14	9.61148	14	9.57793	12	9.63275	14	9.59602	12	9.65333	14	9.61326	11
15	9.61184	18	9.57824	16	9.63310	18	9.59632	15	9.65366	17	9.61354	14
16	9.61220	22	9.57855	19	9.63345	21	9.59661	17	9.65400	20	9.61382	17
17	9.61256	25	9.57885	22	9.63379	25	9.59690	20	9.65434	24	9.61411	20
18	9.61292	29	9.57916	25	9.63414	28	9.59720	23	9.65467	27	9.61438	22
19	9.61328	32	9.57947	28	9.63449	32	9.59749	26	9.65501	31	9.61466	25
20	9.61364	36	9.57978	31	9.63484	35	9.59778	29	9.65535	34	9.61494	28
21	9.61400	4	9.58008	3	9.63519	4	9.59808	3	9.65568	3	9.61522	3
22	9.61436	7	9.58039	6	9.63553	7	9.59837	6	9.65602	7	9.61550	6
23	9.61472	11	9.58070	9	9.63588	11	9.59866	9	9.65636	10	9.61578	8
24	9.61508	14	9.58101	12	9.63623	14	9.59895	12	9.65669	14	9.61606	11
25	9.61544	18	9.58131	16	9.63657	18	9.59924	15	9.65703	17	9.61634	14
26	9.61579	22	9.58162	19	9.63692	21	9.59954	17	9.65736	20	9.61662	17
27	9.61615	25	9.58192	22	9.63726	25	9.59983	20	9.65770	24	9.61689	20
28	9.61651	29	9.58223	25	9.63761	28	9.60012	23	9.65803	27	9.61717	22
29	9.61687	32	9.58253	28	9.63796	32	9.60041	26	9.65837	31	9.61745	25
30	9.61722	36	9.58284	30	9.63830	34	9.60070	29	9.65870	33	9.61773	28
31	9.61758	4	9.58314	3	9.63865	3	9.60099	3	9.65904	3	9.61800	3
32	9.61794	7	9.58345	6	9.63899	7	9.60128	6	9.65937	7	9.61828	6
33	9.61830	11	9.58375	9	9.63934	10	9.60157	9	9.65971	10	9.61856	8
34	9.61865	14	9.58406	12	9.63968	14	9.60186	12	9.66004	13	9.61883	11
35	9.61901	18	9.58436	15	9.64003	17	9.60215	15	9.66038	17	9.61911	14
36	9.61936	22	9.58467	18	9.64037	20	9.60244	17	9.66071	20	9.61939	17
37	9.61972	25	9.58497	21	9.64072	24	9.60273	20	9.66104	23	9.61966	20
38	9.62008	29	9.58527	24	9.64106	27	9.60302	23	9.66138	26	9.61994	22
39	9.62043	32	9.58557	27	9.64140	31	9.60331	26	9.66171	30	9.62021	25
40	9.62079	35	9.58588	30	9.64175	34	9.60359	29	9.66204	33	9.62049	27
41	9.62114	4	9.58618	3	9.64209	3	9.60388	3	9.66238	3	9.62076	3
42	9.62150	7	9.58648	6	9.64243	7	9.60417	6	9.66271	7	9.62104	5
43	9.62185	11	9.58678	9	9.64278	10	9.60446	9	9.66304	10	9.62131	8
44	9.62221	14	9.58709	12	9.64312	14	9.60474	12	9.66337	13	9.62159	11
45	9.62256	18	9.58739	15	9.64346	17	9.60503	15	9.66371	17	9.62186	14
46	9.62292	21	9.58769	18	9.64381	20	9.60532	17	9.66404	20	9.62214	16
47	9.62327	25	9.58799	21	9.64415	24	9.60561	20	9.66437	23	9.62241	19
48	9.62362	28	9.58829	24	9.64449	27	9.60589	23	9.66470	26	9.62268	22
49	9.62398	32	9.58859	27	9.64483	31	9.60618	26	9.66503	30	9.62296	24
50	9.62433	35	9.58889	30	9.64517	34	9.60646	28	9.66537	33	9.62323	27
51	9.62468	4	9.58919	3	9.64552	3	9.60675	3	9.66570	3	9.62350	3
52	9.62504	7	9.58949	6	9.64586	7	9.60704	6	9.66603	7	9.62377	5
53	9.62539	11	9.58979	9	9.64620	10	9.60732	8	9.66636	10	9.62405	8
54	9.62574	14	9.59009	12	9.64654	14	9.60761	11	9.66669	13	9.62432	11
55	9.62609	18	9.59039	15	9.64688	17	9.60789	14	9.66702	17	9.62459	14
56	9.62645	21	9.59069	18	9.64722	20	9.60818	17	9.66735	20	9.62486	16
57	9.62680	25	9.59098	21	9.64756	24	9.60846	20	9.66768	23	9.62513	19
58	9.62715	28	9.59128	24	9.64790	27	9.60875	22	9.66801	26	9.62541	22
59	9.62750	32	9.59158	27	9.64824	31	9.60903	25	9.66834	30	9.62568	24
60	9.62785		9.59188		9.64858		9.60931		9.66867		9.62595	

′	25°				26°				27°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.66867	**33**	9.62595	**27**	9.68818	**32**	9.64184	**26**	9.70717	**31**	9.65705	**25**
1	9.66900	3	9.62622	3	9.68850	3	9.64210	3	9.70748	3	9.65729	3
2	9.66933	7	9.62649	5	9.68882	6	9.64236	5	9.70779	6	9.65754	5
3	9.66966	10	9.62676	8	9.68914	10	9.64262	8	9.70810	9	9.65779	8
4	9.66999	13	9.62703	11	9.68946	13	9.64288	10	9.70841	12	9.65804	10
5	9.67032	17	9.62730	14	9.68978	16	9.64313	13	9.70873	16	9.65828	13
6	9.67065	20	9.62757	16	9.69010	19	9.64339	16	9.70904	19	9.65853	15
7	9.67098	23	9.62784	19	9.69042	22	9.64365	18	9.70935	22	9.65878	18
8	9.67131	26	9.62811	22	9.69074	26	9.64391	21	9.70966	25	9.65902	20
9	9.67163	30	9.62838	24	9.69106	29	9.64417	23	9.70997	28	9.65927	23
10	9.67196	**33**	9.62865	**27**	9.69138	**32**	9.64442	**26**	9.71028	**31**	9.65952	**25**
11	9.67229	3	9.62892	3	9.69170	3	9.64468	3	9.71059	3	9.65976	3
12	9.67262	7	9.62918	5	9.69202	6	9.64494	5	9.71090	6	9.66001	5
13	9.67295	10	9.62945	8	9.69234	10	9.64519	8	9.71121	9	9.66025	8
14	9.67327	13	9.62972	11	9.69266	13	9.64545	10	9.71153	12	9.66050	10
15	9.67360	17	9.62999	14	9.69298	16	9.64571	13	9.71184	16	9.66075	13
16	9.67393	20	9.63026	16	9.69329	19	9.64596	16	9.71215	19	9.66099	15
17	9.67426	23	9.63052	19	9.69361	22	9.64622	18	9.71246	22	9.66124	18
18	9.67458	26	9.63079	22	9.69393	26	9.64647	21	9.71277	25	9.66148	20
19	9.67491	30	9.63106	24	9.69425	29	9.64673	23	9.71308	28	9.66173	23
20	9.67524	**33**	9.63133	**27**	9.69457	**32**	9.64698	**25**	9.71339	**31**	9.66197	**24**
21	9.67556	3	9.63159	3	9.69488	3	9.64724	3	9.71370	3	9.66221	2
22	9.67589	7	9.63186	5	9.69520	6	9.64749	5	9.71401	6	9.66246	5
23	9.67622	10	9.63213	8	9.69552	10	9.64775	8	9.71431	9	9.66270	7
24	9.67654	13	9.63239	11	9.69584	13	9.64800	10	9.71462	12	9.66295	10
25	9.67687	17	9.63266	14	9.69615	16	9.64826	13	9.71493	16	9.66319	12
26	9.67719	20	9.63292	16	9.69647	19	9.64851	15	9.71524	19	9.66343	14
27	9.67752	23	9.63319	19	9.69679	22	9.64877	18	9.71555	22	9.66368	17
28	9.67785	26	9.63345	22	9.69710	26	9.64902	20	9.71586	25	9.66392	19
29	9.67817	30	9.63372	24	9.69742	29	9.64927	23	9.71617	28	9.66416	22
30	9.67850	**32**	9.63398	**26**	9.69774	**32**	9.64953	**25**	9.71648	**31**	9.66441	**24**
31	9.67882	3	9.63425	3	9.69805	3	9.64978	3	9.71679	3	9.66465	2
32	9.67915	6	9.63451	5	9.69837	6	9.65003	5	9.71709	6	9.66489	5
33	9.67947	10	9.63478	8	9.69868	10	9.65029	8	9.71740	9	9.66513	7
34	9.67980	13	9.63504	10	9.69900	13	9.65054	10	9.71771	12	9.66537	10
35	9.68012	16	9.63531	13	9.69932	16	9.65079	13	9.71802	16	9.66562	12
36	9.68044	19	9.63557	16	9.69963	19	9.65104	15	9.71833	19	9.66586	14
37	9.68077	22	9.63583	18	9.69995	22	9.65130	18	9.71863	22	9.66610	17
38	9.68109	26	9.63610	21	9.70026	26	9.65155	20	9.71894	25	9.66634	19
39	9.68142	29	9.63636	23	9.70058	29	9.65180	23	9.71925	28	9.66658	22
40	9.68174	**32**	9.63662	**26**	9.70089	**31**	9.65205	**25**	9.71955	**31**	9.66682	**24**
41	9.68206	3	9.63689	3	9.70121	3	9.65230	3	9.71986	3	9.66706	2
42	9.68239	6	9.63715	5	9.70152	6	9.65255	5	9.72017	6	9.66731	5
43	9.68271	10	9.63741	8	9.70184	9	9.65281	8	9.72048	9	9.66755	7
44	9.68303	13	9.63767	10	9.70215	12	9.65306	10	9.72078	12	9.66779	10
45	9.68336	16	9.63794	13	9.70247	16	9.65331	13	9.72109	16	9.66803	12
46	9.68368	19	9.63820	16	9.70278	19	9.65356	15	9.72140	19	9.66827	14
47	9.68400	22	9.63846	18	9.70309	22	9.65381	18	9.72170	22	9.66851	17
48	9.68432	26	9.63872	21	9.70341	25	9.65406	20	9.72201	25	9.66875	19
49	9.68465	29	9.63898	23	9.70372	28	9.65431	23	9.72231	28	9.66899	22
50	9.68497	**32**	9.63924	**26**	9.70404	**31**	9.65456	**25**	9.72262	**31**	9.66922	**24**
51	9.68529	3	9.63950	3	9.70435	3	9.65481	3	9.72293	3	9.66946	2
52	9.68561	6	9.63976	5	9.70466	6	9.65506	5	9.72323	6	9.66970	5
53	9.68593	10	9.64002	8	9.70498	9	9.65531	8	9.72354	9	9.66994	7
54	9.68626	13	9.64028	10	9.70529	12	9.65556	10	9.72384	12	9.67018	10
55	9.68658	16	9.64054	13	9.70560	16	9.65580	13	9.72415	16	9.67042	12
56	9.68690	19	9.64080	16	9.70592	19	9.65605	15	9.72445	19	9.67066	14
57	9.68722	22	9.64106	18	9.70623	22	9.65630	18	9.72476	22	9.67090	17
58	9.68754	26	9.64132	21	9.70654	25	9.65655	20	9.72506	25	9.67113	19
59	9.68786	29	9.64158	23	9.70685	28	9.65680	23	9.72537	28	9.67137	22
60	9.68818		9.64184		9.70717		9.65705		9.72567		9.67161	

′	28°				29°				30°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.72567	**30**	9.67161	**24**	9.74375	**30**	9.68557	**23**	9.76144	**29**	9.69897	**22**
1	9.72598	3	9.67185	2	9.74405	3	9.68580	2	9.76173	3	9.69919	2
2	9.72628	6	9.67208	5	9.74435	6	9.68603	5	9.76202	6	9.69941	4
3	9.72659	9	9.67232	7	9.74465	9	9.68625	7	9.76231	9	9.69963	7
4	9.72689	12	9.67256	10	9.74494	12	9.68648	9	9.76261	12	9.69984	9
5	9.72720	15	9.67280	12	9.74524	15	9.68671	12	9.76290	15	9.70006	11
6	9.72750	18	9.67303	14	9.74554	18	9.68694	14	9.76319	17	9.70028	13
7	9.72780	21	9.67327	17	9.74583	21	9.68716	16	9.76348	20	9.70050	15
8	9.72811	24	9.67350	19	9.74613	24	9.68739	18	9.76377	23	9.70072	18
9	9.72841	27	9.67374	22	9.74643	27	9.68762	21	9.76406	26	9.70093	20
10	9.72872	**30**	9.67398	**24**	9.74673	**30**	9.68784	**23**	9.76435	**29**	9.70115	**22**
11	9.72902	3	9.67421	2	9.74702	3	9.68807	2	9.76464	3	9.70137	2
12	9.72932	6	9.67445	5	9.74732	6	9.68829	5	9.76493	6	9.70159	4
13	9.72963	9	9.67468	7	9.74762	9	9.68852	7	9.76522	9	9.70180	7
14	9.72993	12	9.67492	10	9.74791	12	9.68875	9	9.76551	12	9.70202	9
15	9.73023	15	9.67515	12	9.74821	15	9.68897	12	9.76580	15	9.70224	11
16	9.73054	18	9.67539	14	9.74851	18	9.68920	14	9.76609	17	9.70245	13
17	9.73084	21	9.67562	17	9.74880	21	9.68942	16	9.76639	20	9.70267	15
18	9.73114	24	9.67586	19	9.74910	24	9.68965	18	9.76668	23	9.70288	18
19	9.73144	27	9.67609	22	9.74939	27	9.68987	21	9.76697	26	9.70310	20
20	9.73175	**30**	9.67633	**23**	9.74969	**30**	9.69010	**22**	9.76725	**29**	9.70332	**22**
21	9.73205	3	9.67656	2	9.74998	3	9.69032	2	9.76754	3	9.70353	2
22	9.73235	6	9.67680	5	9.75028	6	9.69055	4	9.76783	6	9.70375	4
23	9.73265	9	9.67703	7	9.75058	9	9.69077	7	9.76812	9	9.70396	7
24	9.73295	12	9.67726	9	9.75087	12	9.69100	9	9.76841	12	9.70418	9
25	9.73326	15	9.67750	12	9.75117	15	9.69122	11	9.76870	15	9.70439	11
26	9.73356	18	9.67773	14	9.75146	18	9.69144	13	9.76899	17	9.70461	13
27	9.73386	21	9.67796	16	9.75176	21	9.69167	15	9.76928	20	9.70482	15
28	9.73416	24	9.67820	18	9.75205	24	9.69189	18	9.76957	23	9.70504	18
29	9.73446	27	9.67843	21	9.75235	27	9.69212	20	9.76986	26	9.70525	20
30	9.73476	**30**	9.67866	**23**	9.75264	**29**	9.69234	**22**	9.77015	**29**	9.70547	**21**
31	9.73507	3	9.67890	2	9.75294	3	9.69256	2	9.77044	3	9.70568	2
32	9.73537	6	9.67913	5	9.75323	6	9.69279	4	9.77073	6	9.70590	4
33	9.73567	9	9.67936	7	9.75353	9	9.69301	7	9.77101	9	9.70611	6
34	9.73597	12	9.67959	9	9.75382	12	9.69323	9	9.77130	12	9.70633	8
35	9.73627	15	9.67982	12	9.75411	15	9.69345	11	9.77159	15	9.70654	11
36	9.73657	18	9.68006	14	9.75441	17	9.69368	13	9.77188	17	9.70675	13
37	9.73687	21	9.68029	16	9.75470	20	9.69390	15	9.77217	20	9.70697	15
38	9.73717	24	9.68052	18	9.75500	23	9.69412	18	9.77246	23	9.70718	17
39	9.73747	27	9.68075	21	9.75529	26	9.69434	20	9.77274	26	9.70739	19
40	9.73777	**30**	9.68098	**23**	9.75558	**29**	9.69456	**22**	9.77303	**29**	9.70761	**21**
41	9.73807	3	9.68121	2	9.75588	3	9.69479	2	9.77332	3	9.70782	2
42	9.73837	6	9.68144	5	9.75617	6	9.69501	4	9.77361	6	9.70803	4
43	9.73867	9	9.68167	7	9.75647	9	9.69523	7	9.77390	9	9.70824	6
44	9.73897	12	9.68190	9	9.75676	12	9.69545	9	9.77418	12	9.70846	8
45	9.73927	15	9.68213	12	9.75705	15	9.69567	11	9.77447	15	9.70867	11
46	9.73957	18	9.68237	14	9.75735	17	9.69589	13	9.77476	17	9.70888	13
47	9.73987	21	9.68260	16	9.75764	20	9.69611	15	9.77505	20	9.70909	15
48	9.74017	24	9.68283	18	9.75793	23	9.69633	18	9.77533	23	9.70931	17
49	9.74047	27	9.68305	21	9.75822	26	9.69655	20	9.77562	26	9.70952	19
50	9.74077	**30**	9.68328	**23**	9.75852	**29**	9.69677	**22**	9.77591	**29**	9.70973	**21**
51	9.74107	3	9.68351	2	9.75881	3	9.69699	2	9.77619	3	9.70994	2
52	9.74137	6	9.68374	5	9.75910	6	9.69721	4	9.77648	6	9.71015	4
53	9.74166	9	9.68397	7	9.75939	9	9.69743	7	9.77677	9	9.71036	6
54	9.74196	12	9.68420	9	9.75969	12	9.69765	9	9.77706	12	9.71058	8
55	9.74226	15	9.68443	12	9.75998	15	9.69787	11	9.77734	15	9.71079	11
56	9.74256	18	9.68466	14	9.76027	17	9.69809	13	9.77763	17	9.71100	13
57	9.74286	21	9.68489	16	9.76056	20	9.69831	15	9.77791	20	9.71121	15
58	9.74316	24	9.68512	18	9.76086	23	9.69853	18	9.77820	23	9.71142	17
59	9.74345	27	9.68534	21	9.76115	26	9.69875	20	9.77849	26	9.71163	19
60	9.74375		9.68557		9.76144		9.69897		9.77877		9.71184	

′	31°				32°				33°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.77877	29	9.71184	21	9.79579	28	9.72421	20	9.81252	28	9.73611	19
1	9.77906	3	9.71205	2	9.79607	3	9.72441	2	9.81279	3	9.73630	2
2	9.77935	6	9.71226	4	9.79635	6	9.72461	4	9.81307	6	9.73650	4
3	9.77963	9	9.71247	6	9.79663	8	9.72482	6	9.81335	8	9.73669	6
4	9.77992	12	9.71268	8	9.79691	11	9.72502	8	9.81362	11	9.73689	8
5	9.78020	15	9.71289	11	9.79719	14	9.72522	10	9.81390	14	9.73708	10
6	9.78049	17	9.71310	13	9.79747	17	9.72542	12	9.81418	17	9.73727	11
7	9.78077	20	9.71331	15	9.79776	20	9.72562	14	9.81445	20	9.73747	13
8	9.78106	23	9.71352	17	9.79804	22	9.72582	16	9.81473	22	9.73766	15
9	9.78135	26	9.71373	19	9.79832	25	9.72602	18	9.81500	25	9.73785	17
10	9.78163	28	9.71393	21	9.79860	28	9.72622	20	9.81528	28	9.73805	19
11	9.78192	3	9.71414	2	9.79888	3	9.72643	2	9.81556	3	9.73824	2
12	9.78220	6	9.71435	4	9.79916	6	9.72663	4	9.81583	6	9.73843	4
13	9.78249	8	9.71456	6	9.79944	8	9.72683	6	9.81611	8	9.73863	6
14	9.78277	11	9.71477	8	9.79972	11	9.72703	8	9.81638	11	9.73882	8
15	9.78306	14	9.71498	11	9.80000	14	9.72723	10	9.81666	14	9.73901	10
16	9.78334	17	9.71519	13	9.80028	17	9.72743	12	9.81693	17	9.73921	11
17	9.78363	20	9.71539	15	9.80056	20	9.72763	14	9.81721	20	9.73940	13
18	9.78391	22	9.71560	17	9.80084	22	9.72783	16	9.81748	22	9.73959	15
19	9.78419	25	9.71581	19	9.80112	25	9.72803	18	9.81776	25	9.73978	17
20	9.78448	28	9.71602	21	9.80140	28	9.72823	20	9.81803	27	9.73997	19
21	9.78476	3	9.71622	2	9.80168	3	9.72843	2	9.81831	3	9.74017	2
22	9.78505	6	9.71643	4	9.80195	6	9.72863	4	9.81858	5	9.74036	4
23	9.78533	8	9.71664	6	9.80223	8	9.72883	6	9.81886	8	9.74055	6
24	9.78562	11	9.71685	8	9.80251	11	9.72902	8	9.81913	11	9.74074	8
25	9.78590	14	9.71705	11	9.80279	14	9.72922	10	9.81941	14	9.74093	10
26	9.78618	17	9.71726	13	9.80307	17	9.72942	12	9.81968	16	9.74113	11
27	9.78647	20	9.71747	15	9.80335	20	9.72962	14	9.81996	19	9.74132	13
28	9.78675	22	9.71767	17	9.80363	22	9.72982	16	9.82023	22	9.74151	15
29	9.78704	25	9.71788	19	9.80391	25	9.73002	18	9.82051	24	9.74170	17
30	9.78732	28	9.71809	21	9.80419	28	9.73022	20	9.82078	27	9.74189	19
31	9.78760	3	9.71829	2	9.80447	3	9.73041	2	9.82106	3	9.74208	2
32	9.78789	6	9.71850	4	9.80474	6	9.73061	4	9.82133	5	9.74227	4
33	9.78817	8	9.71870	6	9.80502	8	9.73081	6	9.82161	8	9.74246	6
34	9.78845	11	9.71891	8	9.80530	11	9.73101	8	9.82188	11	9.74265	8
35	9.78874	14	9.71911	11	9.80558	14	9.73121	10	9.82215	14	9.74284	10
36	9.78902	17	9.71932	13	9.80586	17	9.73140	12	9.82243	16	9.74303	11
37	9.78930	20	9.71952	15	9.80614	20	9.73160	14	9.82270	19	9.74322	13
38	9.78959	22	9.71973	17	9.80642	22	9.73180	16	9.82298	22	9.74341	15
39	9.78987	25	9.71994	19	9.80669	25	9.73200	18	9.82325	24	9.74360	17
40	9.79015	28	9.72014	20	9.80697	28	9.73219	20	9.82352	27	9.74379	19
41	9.79043	3	9.72034	2	9.80725	3	9.73239	2	9.82380	3	9.74398	2
42	9.79072	6	9.72055	4	9.80753	6	9.73259	4	9.82407	5	9.74417	4
43	9.79100	8	9.72075	6	9.80781	8	9.73278	6	9.82435	8	9.74436	6
44	9.79128	11	9.72096	8	9.80808	11	9.73298	8	9.82462	11	9.74455	8
45	9.79156	14	9.72116	10	9.80836	14	9.73318	10	9.82489	14	9.74474	10
46	9.79185	17	9.72137	12	9.80864	17	9.73337	12	9.82517	16	9.74493	11
47	9.79213	20	9.72157	14	9.80892	20	9.73357	14	9.82544	19	9.74512	13
48	9.79241	22	9.72177	16	9.80919	22	9.73377	16	9.82571	22	9.74531	15
49	9.79269	25	9.72198	18	9.80947	25	9.73396	18	9.82599	24	9.74549	17
50	9.79297	28	9.72218	20	9.80975	28	9.73416	20	9.82626	27	9.74568	19
51	9.79326	3	9.72238	2	9.81003	3	9.73435	2	9.82653	3	9.74587	2
52	9.79354	6	9.72259	4	9.81030	6	9.73455	4	9.82681	5	9.74606	4
53	9.79382	8	9.72279	6	9.81058	8	9.73474	6	9.82708	8	9.74625	6
54	9.79410	11	9.72299	8	9.81086	11	9.73494	8	9.82735	11	9.74644	8
55	9.79438	14	9.72320	10	9.81113	14	9.73513	10	9.82762	14	9.74662	10
56	9.79466	17	9.72340	12	9.81141	17	9.73533	12	9.82790	16	9.74681	11
57	9.79495	20	9.72360	14	9.81169	20	9.73552	14	9.82817	19	9.74700	13
58	9.79523	22	9.72381	16	9.81196	22	9.73572	16	9.82844	22	9.74719	15
59	9.79551	25	9.72401	18	9.81224	25	9.73591	18	9.82871	24	9.74737	17
60	9.79579		9.72421		9.81252		9.73611		9.82899		9.74756	

′	34°				35°				36°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.82899	27	9.74756	19	9.84523	27	9.75859	18	9.86126	27	9.76922	17
1	9.82926	3	9.74775	2	9.84550	3	9.75877	2	9.86153	3	9.76939	2
2	9.82953	5	9.74794	4	9.84576	5	9.75895	4	9.86179	5	9.76957	3
3	9.82980	8	9.74812	6	9.84603	8	9.75913	5	9.86206	8	9.76974	5
4	9.83008	11	9.74831	8	9.84630	11	9.75931	7	9.86232	11	9.76991	7
5	9.83035	14	9.74850	10	9.84657	14	9.75949	9	9.86259	14	9.77009	9
6	9.83062	16	9.74868	11	9.84684	16	9.75967	11	9.86285	16	9.77026	10
7	9.83089	19	9.74887	13	9.84711	19	9.75985	13	9.86312	19	9.77043	12
8	9.83117	22	9.74906	15	9.84738	22	9.76003	14	9.86338	22	9.77061	14
9	9.83144	24	9.74924	17	9.84764	24	9.76021	16	9.86365	24	9.77078	15
10	9.83171	27	9.74943	19	9.84791	27	9.76039	18	9.86392	26	9.77095	17
11	9.83198	3	9.74961	2	9.84818	3	9.76057	2	9.86418	3	9.77112	2
12	9.83225	5	9.74980	4	9.84845	5	9.76075	4	9.86445	5	9.77130	3
13	9.83252	8	9.74999	6	9.84872	8	9.76093	5	9.86471	8	9.77147	5
14	9.83280	11	9.75017	8	9.84899	11	9.76111	7	9.86498	10	9.77164	7
15	9.83307	14	9.75036	10	9.84925	14	9.76129	9	9.86524	13	9.77181	9
16	9.83334	16	9.75054	11	9.84952	16	9.76146	11	9.86551	16	9.77199	10
17	9.83361	19	9.75073	13	9.84979	19	9.76164	13	9.86577	18	9.77216	12
18	9.83388	22	9.75091	15	9.85006	22	9.76182	14	9.86603	21	9.77233	14
19	9.83415	24	9.75110	17	9.85033	24	9.76200	16	9.86630	23	9.77250	15
20	9.83442	27	9.75128	18	9.85059	27	9.76218	18	9.86656	26	9.77268	17
21	9.83470	3	9.75147	2	9.85086	3	9.76236	2	9.86683	3	9.77285	2
22	9.83497	5	9.75165	4	9.85113	5	9.76253	4	9.86709	5	9.77302	3
23	9.83524	8	9.75184	5	9.85140	8	9.76271	5	9.86736	8	9.77319	5
24	9.83551	11	9.75202	7	9.85166	11	9.76289	7	9.86762	10	9.77336	7
25	9.83578	14	9.75221	9	9.85193	14	9.76307	9	9.86789	13	9.77353	9
26	9.83605	16	9.75239	11	9.85220	16	9.76324	11	9.86815	16	9.77370	10
27	9.83632	19	9.75258	13	9.85247	19	9.76342	13	9.86842	18	9.77387	12
28	9.83659	22	9.75276	14	9.85273	22	9.76360	14	9.86868	21	9.77405	14
29	9.83686	24	9.75294	16	9.85300	24	9.76378	16	9.86894	23	9.77422	15
30	9.83713	27	9.75313	18	9.85327	27	9.76395	18	9.86921	26	9.77439	17
31	9.83740	3	9.75331	2	9.85354	3	9.76413	2	9.86947	3	9.77456	2
32	9.83768	5	9.75350	4	9.85380	5	9.76431	4	9.86974	5	9.77473	3
33	9.83795	8	9.75368	5	9.85407	8	9.76448	5	9.87000	8	9.77490	5
34	9.83822	11	9.75386	7	9.85434	11	9.76466	7	9.87027	10	9.77507	7
35	9.83849	14	9.75405	9	9.85460	14	9.76484	9	9.87053	13	9.77524	9
36	9.83876	16	9.75423	11	9.85487	16	9.76501	11	9.87079	16	9.77541	10
37	9.83903	19	9.75441	13	9.85514	19	9.76519	13	9.87106	18	9.77558	12
38	9.83930	22	9.75459	14	9.85540	22	9.76537	14	9.87132	21	9.77575	14
39	9.83957	24	9.75478	16	9.85567	24	9.76554	16	9.87158	23	9.77592	15
40	9.83984	27	9.75496	18	9.85594	27	9.76572	18	9.87185	26	9.77609	17
41	9.84011	3	9.75514	2	9.85620	3	9.76590	2	9.87211	3	9.77626	2
42	9.84038	5	9.75533	4	9.85647	5	9.76607	4	9.87238	5	9.77643	3
43	9.84065	8	9.75551	5	9.85674	8	9.76625	5	9.87264	8	9.77660	5
44	9.84092	11	9.75569	7	9.85700	11	9.76642	7	9.87290	10	9.77677	7
45	9.84119	14	9.75587	9	9.85727	14	9.76660	9	9.87317	13	9.77694	9
46	9.84146	16	9.75605	11	9.85754	16	9.76677	11	9.87343	16	9.77711	10
47	9.84173	19	9.75624	13	9.85780	19	9.76695	13	9.87369	18	9.77728	12
48	9.84200	22	9.75642	14	9.85807	22	9.76712	14	9.87396	21	9.77744	14
49	9.84227	24	9.75660	16	9.85834	24	9.76730	16	9.87422	23	9.77761	15
50	9.84254	27	9.75678	18	9.85860	27	9.76747	17	9.87448	26	9.77778	17
51	9.84280	3	9.75696	2	9.85887	3	9.76765	2	9.87475	3	9.77795	2
52	9.84307	5	9.75714	4	9.85913	5	9.76782	3	9.87501	5	9.77812	3
53	9.84334	8	9.75733	5	9.85940	8	9.76800	5	9.87527	8	9.77829	5
54	9.84361	11	9.75751	7	9.85967	11	9.76817	7	9.87554	10	9.77846	7
55	9.84388	14	9.75769	9	9.85993	14	9.76835	9	9.87580	13	9.77862	9
56	9.84415	16	9.75787	11	9.86020	16	9.76852	10	9.87606	16	9.77879	10
57	9.84442	19	9.75805	13	9.86046	19	9.76870	12	9.87633	18	9.77896	12
58	9.84469	22	9.75823	14	9.86073	22	9.76887	14	9.87659	21	9.77913	14
59	9.84496	24	9.75841	16	9.86100	24	9.76904	15	9.87685	23	9.77930	15
60	9.84523		9.75859		9.86126		9.76922		9.87711		9.77946	

′	37°				38°				39°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.87711	26	9.77946	17	9.89281	26	9.78934	16	9.90837	26	9.79887	16
1	9.87738	3	9.77963	2	9.89307	3	9.78950	2	9.90863	3	9.79903	2
2	9.87764	5	9.77980	3	9.89333	5	9.78967	3	9.90889	5	9.79918	3
3	9.87790	8	9.77997	5	9.89359	8	9.78983	5	9.90914	8	9.79934	5
4	9.87817	10	9.78013	7	9.89385	10	9.78999	6	9.90940	10	9.79950	6
5	9.87843	13	9.78030	9	9.89411	13	9.79015	8	9.90966	13	9.79965	8
6	9.87869	16	9.78047	10	9.89437	16	9.79031	10	9.90992	16	9.79981	10
7	9.87895	18	9.78063	12	9.89463	18	9.79047	11	9.91018	18	9.79996	11
8	9.87922	21	9.78080	14	9.89489	21	9.79063	13	9.91043	21	9.80012	13
9	9.87948	23	9.78097	15	9.89515	23	9.79079	14	9.91069	23	9.80027	14
10	9.87974	26	9.78113	17	9.89541	26	9.79095	16	9.91095	26	9.80043	15
11	9.88000	3	9.78130	2	9.89567	3	9.79111	2	9.91121	3	9.80058	2
12	9.88027	5	9.78147	3	9.89593	5	9.79128	3	9.91147	5	9.80074	3
13	9.88053	8	9.78163	5	9.89619	8	9.79144	5	9.91172	8	9.80089	5
14	9.88079	10	9.78180	7	9.89645	10	9.79160	6	9.91198	10	9.80105	6
15	9.88105	13	9.78197	9	9.89671	13	9.79176	8	9.91224	13	9.80120	8
16	9.88131	16	9.78213	10	9.89697	16	9.79192	10	9.91250	16	9.80136	9
17	9.88158	18	9.78230	12	9.89723	18	9.79208	11	9.91276	18	9.80151	11
18	9.88184	21	9.78246	14	9.89749	21	9.79224	13	9.91301	21	9.80166	12
19	9.88210	23	9.78263	15	9.89775	23	9.79240	14	9.91327	23	9.80182	14
20	9.88236	26	9.78280	17	9.89801	26	9.79256	16	9.91353	26	9.80197	15
21	9.88262	3	9.78296	2	9.89827	3	9.79272	2	9.91379	3	9.80213	2
22	9.88289	5	9.78313	3	9.89853	5	9.79288	3	9.91404	5	9.80228	3
23	9.88315	8	9.78329	5	9.89879	8	9.79304	5	9.91430	8	9.80244	5
24	9.88341	10	9.78346	7	9.89905	10	9.79319	6	9.91456	10	9.80259	6
25	9.88367	13	9.78362	9	9.89931	13	9.79335	8	9.91482	13	9.80274	8
26	9.88393	16	9.78379	10	9.89957	16	9.79351	10	9.91507	16	9.80290	9
27	9.88420	18	9.78395	12	9.89983	18	9.79367	11	9.91533	18	9.80305	11
28	9.88446	21	9.78412	14	9.90009	21	9.79383	13	9.91559	21	9.80320	12
29	9.88472	23	9.78428	15	9.90035	23	9.79399	14	9.91585	23	9.80336	14
30	9.88498	26	9.78445	16	9.90061	26	9.79415	16	9.91610	26	9.80351	15
31	9.88524	3	9.78461	2	9.90086	3	9.79431	2	9.91636	3	9.80366	2
32	9.88550	5	9.78478	3	9.90112	5	9.79447	3	9.91662	5	9.80382	3
33	9.88577	8	9.78494	5	9.90138	8	9.79463	5	9.91688	8	9.80397	5
34	9.88603	10	9.78510	6	9.90164	10	9.79478	6	9.91713	10	9.80412	6
35	9.88629	13	9.78527	8	9.90190	13	9.79494	8	9.91739	13	9.80428	8
36	9.88655	16	9.78543	10	9.90216	16	9.79510	10	9.91765	16	9.80443	9
37	9.88681	18	9.78560	11	9.90242	18	9.79526	11	9.91791	18	9.80458	11
38	9.88707	21	9.78576	13	9.90268	21	9.79542	13	9.91816	21	9.80473	12
39	9.88733	23	9.78592	14	9.90294	23	9.79558	14	9.91842	23	9.80489	14
40	9.88759	26	9.78609	16	9.90320	26	9.79573	16	9.91868	26	9.80504	15
41	9.88786	3	9.78625	2	9.90346	3	9.79589	2	9.91893	3	9.80519	2
42	9.88812	5	9.78642	3	9.90371	5	9.79605	3	9.91919	5	9.80534	3
43	9.88838	8	9.78658	5	9.90397	8	9.79621	5	9.91945	8	9.80550	5
44	9.88864	10	9.78674	6	9.90423	10	9.79636	6	9.91971	10	9.80565	6
45	9.88890	13	9.78691	8	9.90449	13	9.79652	8	9.91996	13	9.80580	8
46	9.88916	16	9.78707	10	9.90475	16	9.79668	10	9.92022	16	9.80595	9
47	9.88942	18	9.78723	11	9.90501	18	9.79684	11	9.92048	18	9.80610	11
48	9.88968	21	9.78739	13	9.90527	21	9.79699	13	9.92073	21	9.80625	12
49	9.88994	23	9.78756	14	9.90553	23	9.79715	14	9.92099	23	9.80641	14
50	9.89020	26	9.78772	16	9.90578	26	9.79731	16	9.92125	26	9.80656	15
51	9.89046	3	9.78788	2	9.90604	3	9.79746	2	9.92150	3	9.80671	2
52	9.89073	5	9.78805	3	9.90630	5	9.79762	3	9.92176	5	9.80686	3
53	9.89099	8	9.78821	5	9.90656	8	9.79778	5	9.92202	8	9.80701	5
54	9.89125	10	9.78837	6	9.90682	10	9.79793	6	9.92227	10	9.80716	6
55	9.89151	13	9.78853	8	9.90708	13	9.79809	8	9.92253	13	9.80731	8
56	9.89177	16	9.78869	10	9.90734	16	9.79825	10	9.92279	16	9.80746	9
57	9.89203	18	9.78886	11	9.90759	18	9.79840	11	9.92304	18	9.80762	11
58	9.89229	21	9.78902	13	9.90785	21	9.79856	13	9.92330	21	9.80777	12
59	9.89255	23	9.78918	14	9.90811	23	9.79872	14	9.92356	23	9.80792	14
60	9.89281		9.78934		9.90837		9.79887		9.92381		9.80807	

′	40°				41°				42°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.92381	26	9.80807	15	9.93916	26	9.81694	14	9.95444	25	9.82551	14
1	9.92407	3	9.80822	2	9.93942	3	9.81709	1	9.95469	3	9.82565	1
2	9.92433	5	9.80837	3	9.93967	5	9.81723	3	9.95495	5	9.82579	3
3	9.92458	8	9.80852	5	9.93993	8	9.81738	4	9.95520	8	9.82593	4
4	9.92484	10	9.80867	6	9.94018	10	9.81752	6	9.95545	10	9.82607	6
5	9.92510	13	9.80882	8	9.94044	13	9.81767	7	9.95571	13	9.82621	7
6	9.92535	16	9.80897	9	9.94069	16	9.81781	8	9.95596	15	9.82635	8
7	9.92561	18	9.80912	11	9.94095	18	9.81796	10	9.95622	18	9.82649	10
8	9.92587	21	9.80927	12	9.94120	21	9.81810	11	9.95647	20	9.82663	11
9	9.92612	23	9.80942	14	9.94146	23	9.81825	13	9.95672	23	9.82677	13
10	9.92638	26	9.80957	15	9.94171	25	9.81839	14	9.95698	25	9.82691	14
11	9.92663	3	9.80972	2	9.94197	3	9.81854	1	9.95723	3	9.82705	1
12	9.92689	5	9.80987	3	9.94222	5	9.81868	3	9.95748	5	9.82719	3
13	9.92715	8	9.81002	5	9.94248	8	9.81882	4	9.95774	8	9.82733	4
14	9.92740	10	9.81017	6	9.94273	10	9.81897	6	9.95799	10	9.82747	6
15	9.92766	13	9.81032	8	9.94299	13	9.81911	7	9.95825	13	9.82761	7
16	9.92792	16	9.81047	9	9.94324	15	9.81926	8	9.95850	15	9.82775	8
17	9.92817	18	9.81061	11	9.94350	18	9.81940	10	9.95875	18	9.82788	10
18	9.92843	21	9.81076	12	9.94375	20	9.81955	11	9.95901	20	9.82802	11
19	9.92868	23	9.81091	14	9.94401	23	9.81969	13	9.95926	23	9.82816	13
20	9.92894	26	9.81106	15	9.94426	25	9.81983	14	9.95952	25	9.82830	14
21	9.92920	3	9.81121	2	9.94452	3	9.81998	1	9.95977	3	9.82844	1
22	9.92945	5	9.81136	3	9.94477	5	9.82012	3	9.96002	5	9.82858	3
23	9.92971	8	9.81151	5	9.94503	8	9.82026	4	9.96028	8	9.82872	4
24	9.92996	10	9.81166	6	9.94528	10	9.82041	6	9.96053	10	9.82885	6
25	9.93022	13	9.81180	8	9.94554	13	9.82055	7	9.96078	13	9.82899	7
26	9.93048	16	9.81195	9	9.94579	15	9.82069	8	9.96104	15	9.82913	8
27	9.93073	18	9.81210	11	9.94604	18	9.82084	10	9.96129	18	9.82927	10
28	9.93099	21	9.81225	12	9.94630	20	9.82098	11	9.96155	20	9.82941	11
29	9.93124	23	9.81240	14	9.94655	23	9.82112	13	9.96180	23	9.82955	13
30	9.93150	26	9.81254	15	9.94681	25	9.82126	14	9.96205	25	9.82968	14
31	9.93175	3	9.81269	2	9.94706	3	9.82141	1	9.96231	3	9.82982	1
32	9.93201	5	9.81284	3	9.94732	5	9.82155	3	9.96256	5	9.82996	3
33	9.93227	8	9.81299	5	9.94757	8	9.82169	4	9.96281	8	9.83010	4
34	9.93252	10	9.81314	6	9.94783	10	9.82184	6	9.96307	10	9.83023	6
35	9.93278	13	9.81328	8	9.94808	13	9.82198	7	9.96332	13	9.83037	7
36	9.93303	16	9.81343	9	9.94834	15	9.82212	8	9.96357	15	9.83051	8
37	9.93329	18	9.81358	11	9.94859	18	9.82226	10	9.96383	18	9.83065	10
38	9.93354	21	9.81372	12	9.94884	20	9.82240	11	9.96408	20	9.83078	11
39	9.93380	23	9.81387	14	9.94910	23	9.82255	13	9.96433	23	9.83092	13
40	9.93406	26	9.81402	15	9.94935	25	9.82269	14	9.96459	25	9.83106	14
41	9.93431	3	9.81417	2	9.94961	3	9.82283	1	9.96484	3	9.83120	1
42	9.93457	5	9.81431	3	9.94986	5	9.82297	3	9.96510	5	9.83133	3
43	9.93482	8	9.81446	5	9.95012	8	9.82311	4	9.96535	8	9.83147	4
44	9.93508	10	9.81461	6	9.95037	10	9.82326	6	9.96560	10	9.83161	6
45	9.93533	13	9.81475	8	9.95062	13	9.82340	7	9.96586	13	9.83174	7
46	9.93559	16	9.81490	9	9.95088	15	9.82354	8	9.96611	15	9.83188	8
47	9.93584	18	9.81505	11	9.95113	18	9.82368	10	9.96636	18	9.83202	10
48	9.93610	21	9.81519	12	9.95139	20	9.82382	11	9.96662	20	9.83215	11
49	9.93636	23	9.81534	14	9.95164	23	9.82396	13	9.96687	23	9.83229	13
50	9.93661	26	9.81549	15	9.95190	25	9.82410	14	9.96712	25	9.83242	14
51	9.93687	3	9.81563	2	9.95215	3	9.82424	1	9.96738	3	9.83256	1
52	9.93712	5	9.81578	3	9.95240	5	9.82439	3	9.96763	5	9.83270	3
53	9.93738	8	9.81592	5	9.95266	8	9.82453	4	9.96788	8	9.83283	4
54	9.93763	10	9.81607	6	9.95291	10	9.82467	6	9.96814	10	9.83297	6
55	9.93789	13	9.81622	8	9.95317	13	9.82481	7	9.96839	13	9.83310	7
56	9.93814	16	9.81636	9	9.95342	15	9.82495	8	9.96864	15	9.83324	8
57	9.93840	18	9.81651	11	9.95368	18	9.82509	10	9.96890	18	9.83338	10
58	9.93865	21	9.81665	12	9.95393	20	9.82523	11	9.96915	20	9.83351	11
59	9.93891	23	9.81680	14	9.95418	23	9.82537	13	9.96940	23	9.83365	13
60	9.93916		9.81694		9.95444		9.82551		9.96966		9.83378	

′	43°				44°				45°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	9.96966	25	9.83378	14	9.98484	25	9.84177	13	0.00000	25	9.84949	13
1	9.96991	3	9.83392	1	9.98509	3	9.84190	1	0.00025	3	9.84961	1
2	9.97016	5	9.83405	3	9.98534	5	9.84203	3	0.00051	5	9.84974	3
3	9.97042	8	9.83419	4	9.98560	8	9.84216	4	0.00076	8	9.84986	4
4	9.97067	10	9.83432	6	9.98585	10	9.84229	5	0.00101	10	9.84999	5
5	9.97092	13	9.83446	7	9.98610	13	9.84242	7	0.00126	13	9.85012	7
6	9.97118	15	9.83459	8	9.98635	15	9.84255	8	0.00152	15	9.85024	8
7	9.97143	18	9.83473	10	9.98661	18	9.84269	9	0.00177	18	9.85037	9
8	9.97168	20	9.83486	11	9.98686	20	9.84282	10	0.00202	20	9.85049	10
9	9.97193	23	9.83500	13	9.98711	23	9.84295	12	0.00227	23	9.85062	12
10	9.97219	25	9.83513	13	9.98737	25	9.84308	13	0.00253	25	9.85074	13
11	9.97244	3	9.83527	1	9.98762	3	9.84321	1	0.00278	3	9.85087	1
12	9.97269	5	9.83540	3	9.98787	5	9.84334	3	0.00303	5	9.85100	3
13	9.97295	8	9.83554	4	9.98812	8	9.84347	4	0.00328	8	9.85112	4
14	9.97320	10	9.83567	5	9.98838	10	9.84360	5	0.00354	10	9.85125	5
15	9.97345	13	9.83581	7	9.98863	13	9.84373	7	0.00379	13	9.85137	7
16	9.97371	15	9.83594	8	9.98888	15	9.84385	8	0.00404	15	9.85150	8
17	9.97396	18	9.83608	9	9.98913	18	9.84398	9	0.00430	18	9.85162	9
18	9.97421	20	9.83621	10	9.98939	20	9.84411	10	0.00455	20	9.85175	10
19	9.97447	23	9.83634	12	9.98964	23	9.84424	12	0.00480	23	9.85187	12
20	9.97472	25	9.83648	13	9.98989	25	9.84437	13	0.00505	25	9.85200	12
21	9.97497	3	9.83661	1	9.99015	3	9.84450	1	0.00531	3	9.85212	1
22	9.97523	5	9.83674	3	9.99040	5	9.84463	3	0.00556	5	9.85225	2
23	9.97548	8	9.83688	4	9.99065	8	9.84476	4	0.00581	8	9.85237	4
24	9.97573	10	9.83701	5	9.99090	10	9.84489	5	0.00606	10	9.85250	5
25	9.97598	13	9.83715	7	9.99116	13	9.84502	7	0.00632	13	9.85262	6
26	9.97624	15	9.83728	8	9.99141	15	9.84515	8	0.00657	15	9.85274	7
27	9.97649	18	9.83741	9	9.99166	18	9.84528	9	0.00682	18	9.85287	8
28	9.97674	20	9.83755	10	9.99191	20	9.84540	10	0.00707	20	9.85299	10
29	9.97700	23	9.83768	12	9.99217	23	9.84553	12	0.00733	23	9.85312	11
30	9.97725	25	9.83781	13	9.99242	25	9.84566	13	0.00758	25	9.85324	12
31	9.97750	3	9.83795	1	9.99267	3	9.84579	1	0.00783	3	9.85337	1
32	9.97776	5	9.83808	3	9.99293	5	9.84592	3	0.00809	5	9.85349	2
33	9.97801	8	9.83821	4	9.99318	8	9.84605	4	0.00834	8	9.85361	4
34	9.97826	10	9.83834	5	9.99343	10	9.84618	5	0.00859	10	9.85374	5
35	9.97851	13	9.83848	7	9.99368	13	9.84630	7	0.00884	13	9.85386	6
36	9.97877	15	9.83861	8	9.99394	15	9.84643	8	0.00910	15	9.85399	7
37	9.97902	18	9.83874	9	9.99419	18	9.84656	9	0.00935	18	9.85411	8
38	9.97927	20	9.83887	10	9.99444	20	9.84669	10	0.00960	20	9.85423	10
39	9.97953	23	9.83901	12	9.99469	23	9.84682	12	0.00985	23	9.85436	11
40	9.97978	25	9.83914	13	9.99495	25	9.84694	13	0.01011	25	9.85448	12
41	9.98003	3	9.83927	1	9.99520	3	9.84707	1	0.01036	3	9.85460	1
42	9.98029	5	9.83940	3	9.99545	5	9.84720	3	0.01061	5	9.85473	2
43	9.98054	8	9.83954	4	9.99570	8	9.84733	4	0.01087	8	9.85485	4
44	9.98079	10	9.83967	5	9.99596	10	9.84745	5	0.01112	10	9.85497	5
45	9.98104	13	9.83980	7	9.99621	13	9.84758	7	0.01137	13	9.85510	6
46	9.98130	15	9.83993	8	9.99646	15	9.84771	8	0.01162	15	9.85522	7
47	9.98155	18	9.84006	9	9.99672	18	9.84784	9	0.01188	18	9.85534	8
48	9.98180	20	9.84020	10	9.99697	20	9.84796	10	0.01213	20	9.85547	10
49	9.98206	23	9.84033	12	9.99722	23	9.84809	12	0.01238	23	9.85559	11
50	9.98231	25	9.84046	13	9.99747	25	9.84822	13	0.01263	25	9.85571	12
51	9.98256	3	9.84059	1	9.99773	3	9.84835	1	0.01289	3	9.85583	1
52	9.98281	5	9.84072	3	9.99798	5	9.84847	3	0.01314	5	9.85596	2
53	9.98307	8	9.84085	4	9.99823	8	9.84860	4	0.01339	8	9.85608	4
54	9.98332	10	9.84098	5	9.99848	10	9.84873	5	0.01365	10	9.85620	5
55	9.98357	13	9.84112	7	9.99874	13	9.84885	7	0.01390	13	9.85632	6
56	9.98383	15	9.84125	8	9.99899	15	9.84898	8	0.01415	15	9.85645	7
57	9.98408	18	9.84138	9	9.99924	18	9.84911	9	0.01440	18	9.85657	8
58	9.98433	20	9.84151	10	9.99949	20	9.84923	10	0.01466	20	9.85669	10
59	9.98458	23	9.84164	12	9.99975	23	9.84936	12	0.01491	23	9.85681	11
60	9.98484		9.84177		0.00000		9.84949		0.01516		9.85693	

′	46°				47°				48°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	0.01516	25	9.85693	12	0.03034	25	9.86413	12	0.04556	25	9.87107	11
1	0.01542	3	9.85706	1	0.03060	3	9.86425	1	0.04582	3	9.87119	1
2	0.01567	5	9.85718	2	0.03085	5	9.86436	2	0.04607	5	9.87130	2
3	0.01592	8	9.85730	4	0.03110	8	9.86448	4	0.04632	8	9.87141	3
4	0.01617	10	9.85742	5	0.03136	10	9.86460	5	0.04658	10	9.87153	4
5	0.01643	13	9.85754	6	0.03161	13	9.86472	6	0.04683	13	9.87164	6
6	0.01668	15	9.85766	7	0.03186	15	9.86483	7	0.04709	15	9.87175	7
7	0.01693	18	9.85779	8	0.03212	18	9.86495	8	0.04734	18	9.87187	8
8	0.01719	20	9.85791	10	0.03237	20	9.86507	10	0.04760	20	9.87198	9
9	0.01744	23	9.85803	11	0.03262	23	9.86518	11	0.04785	23	9.87209	10
10	0.01769	25	9.85815	12	0.03288	25	9.86530	12	0.04810	25	9.87221	11
11	0.01794	3	9.85827	1	0.03313	3	9.86542	1	0.04836	3	9.87232	1
12	0.01820	5	9.85839	2	0.03338	5	9.86554	2	0.04861	5	9.87243	2
13	0.01845	8	9.85851	4	0.03364	8	9.86565	4	0.04887	8	9.87255	3
14	0.01870	10	9.85864	5	0.03389	10	9.86577	5	0.04912	10	9.87266	4
15	0.01896	13	9.85876	6	0.03414	13	9.86589	6	0.04938	13	9.87277	6
16	0.01921	15	9.85888	7	0.03440	15	9.86600	7	0.04963	15	9.87288	7
17	0.01946	18	9.85900	8	0.03465	18	9.86612	8	0.04988	18	9.87300	8
18	0.01971	20	9.85912	10	0.03490	20	9.86624	10	0.05014	20	9.87311	9
19	0.01997	23	9.85924	11	0.03516	23	9.86635	11	0.05039	23	9.87322	10
20	0.02022	25	9.85936	12	0.03541	25	9.86647	12	0.05065	25	9.87334	11
21	0.02047	3	9.85948	1	0.03567	3	9.86659	1	0.05090	3	9.87345	1
22	0.02073	5	9.85960	2	0.03592	5	9.86670	2	0.05116	5	9.87356	2
23	0.02098	8	9.85972	4	0.03617	8	9.86682	4	0.05141	8	9.87367	3
24	0.02123	10	9.85984	5	0.03643	10	9.86694	5	0.05166	10	9.87378	4
25	0.02149	13	9.85996	6	0.03668	13	9.86705	6	0.05192	13	9.87390	6
26	0.02174	15	9.86008	7	0.03693	15	9.86717	7	0.05217	15	9.87401	7
27	0.02199	18	9.86020	8	0.03719	18	9.86728	8	0.05243	18	9.87412	8
28	0.02224	20	9.86032	10	0.03744	20	9.86740	10	0.05268	20	9.87423	9
29	0.02250	23	9.86044	11	0.03769	23	9.86752	11	0.05294	23	9.87434	10
30	0.02275	25	9.86056	12	0.03795	25	9.86763	12	0.05319	25	9.87446	11
31	0.02300	3	9.86068	1	0.03820	3	9.86775	1	0.05345	3	9.87457	1
32	0.02326	5	9.86080	2	0.03845	5	9.86786	2	0.05370	5	9.87468	2
33	0.02351	8	9.86092	4	0.03871	8	9.86798	4	0.05396	8	9.87479	3
34	0.02376	10	9.86104	5	0.03896	10	9.86809	5	0.05421	10	9.87490	4
35	0.02402	13	9.86116	6	0.03922	13	9.86821	6	0.05446	13	9.87501	6
36	0.02427	15	9.86128	7	0.03947	15	9.86832	7	0.05472	15	9.87513	7
37	0.02452	18	9.86140	8	0.03972	18	9.86844	8	0.05497	18	9.87524	8
38	0.02477	20	9.86152	10	0.03998	20	9.86855	10	0.05523	20	9.87535	9
39	0.02503	23	9.86164	11	0.04023	23	9.86867	11	0.05548	23	9.87546	10
40	0.02528	25	9.86176	12	0.04048	25	9.86879	11	0.05574	25	9.87557	11
41	0.02553	3	9.86188	1	0.04074	3	9.86890	1	0.05599	3	9.87568	1
42	0.02579	5	9.86200	2	0.04099	5	9.86902	2	0.05625	5	9.87579	2
43	0.02604	8	9.86211	4	0.04125	8	9.86913	3	0.05650	8	9.87590	3
44	0.02629	10	9.86223	5	0.04150	10	9.86924	4	0.05676	10	9.87601	4
45	0.02655	13	9.86235	6	0.04175	13	9.86936	6	0.05701	13	9.87613	6
46	0.02680	15	9.86247	7	0.04201	15	9.86947	7	0.05727	15	9.87624	7
47	0.02705	18	9.86259	8	0.04226	18	9.86959	8	0.05752	18	9.87635	8
48	0.02731	20	9.86271	10	0.04252	20	9.86970	9	0.05778	20	9.87646	9
49	0.02756	23	9.86283	11	0.04277	23	9.86982	10	0.05803	23	9.87657	10
50	0.02781	25	9.86295	12	0.04302	25	9.86993	11	0.05829	26	9.87668	11
51	0.02807	3	9.86306	1	0.04328	3	9.87005	1	0.05854	3	9.87679	1
52	0.02832	5	9.86318	2	0.04353	5	9.87016	2	0.05880	5	9.87690	2
53	0.02857	8	9.86330	4	0.04378	8	9.87028	3	0.05905	8	9.87701	3
54	0.02882	10	9.86342	5	0.04404	10	9.87039	4	0.05931	10	9.87712	4
55	0.02908	13	9.86354	6	0.04429	13	9.87050	6	0.05956	13	9.87723	6
56	0.02933	15	9.86366	7	0.04455	15	9.87062	7	0.05982	16	9.87734	7
57	0.02958	18	9.86377	8	0.04480	18	9.87073	8	0.06007	18	9.87745	8
58	0.02984	20	9.86389	10	0.04505	20	9.87085	9	0.06033	21	9.87756	9
59	0.03009	23	9.86401	11	0.04531	23	9.87096	10	0.06058	23	9.87767	10
60	0.03034		9.86413		0.04556		9.87107		0.06084		9.87778	

′	49°				50°				51°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	0.06084	26	9.87778	11	0.07619	26	9.88425	11	0.09163	26	9.89050	10
1	0.06109	3	9.87789	1	0.07644	3	9.88436	1	0.09189	3	9.89060	1
2	0.06135	5	9.87800	2	0.07670	5	9.88447	2	0.09215	5	9.89071	2
3	0.06160	8	9.87811	3	0.07696	8	9.88457	3	0.09241	8	9.89081	3
4	0.06186	10	9.87822	4	0.07721	10	9.88468	4	0.09266	10	9.89091	4
5	0.06211	13	9.87833	6	0.07747	13	9.88478	6	0.09292	13	9.89101	5
6	0.06237	16	9.87844	7	0.07773	16	9.88489	7	0.09318	16	9.89112	6
7	0.06262	18	9.87855	8	0.07798	18	9.88499	8	0.09344	18	9.89122	7
8	0.06288	21	9.87866	9	0.07824	21	9.88510	9	0.09370	21	9.89132	8
9	0.06313	23	9.87877	10	0.07850	23	9.88521	10	0.09396	23	9.89142	9
10	0.06339	26	9.87887	11	0.07875	26	9.88531	11	0.09422	26	9.89152	10
11	0.06364	3	9.87898	1	0.07901	3	9.88542	1	0.09447	3	9.89162	1
12	0.06390	5	9.87909	2	0.07927	5	9.88552	2	0.09473	5	9.89173	2
13	0.06416	8	9.87920	3	0.07952	8	9.88563	3	0.09499	8	9.89183	3
14	0.06441	10	9.87931	4	0.07978	10	9.88573	4	0.09525	10	9.89193	4
15	0.06467	13	9.87942	6	0.08004	13	9.88584	6	0.09551	13	9.89203	5
16	0.06492	16	9.87953	7	0.08029	16	9.88594	7	0.09577	16	9.89213	6
17	0.06518	18	9.87964	8	0.08055	18	9.88605	8	0.09603	18	9.89223	7
18	0.06543	21	9.87975	9	0.08081	21	9.88615	9	0.09629	21	9.89233	8
19	0.06569	23	9.87985	10	0.08107	23	9.88626	10	0.09654	23	9.89244	9
20	0.06594	26	9.87996	11	0.08132	26	9.88636	10	0.09680	26	9.89254	10
21	0.06620	3	9.88007	1	0.08158	3	9.88647	1	0.09706	3	9.89264	1
22	0.06646	5	9.88018	2	0.08184	5	9.88657	2	0.09732	5	9.89274	2
23	0.06671	8	9.88029	3	0.08209	8	9.88668	3	0.09758	8	9.89284	3
24	0.06697	10	9.88040	4	0.08235	10	9.88678	4	0.09784	10	9.89294	4
25	0.06722	13	9.88051	6	0.08261	13	9.88688	5	0.09810	13	9.89304	5
26	0.06748	16	9.88061	7	0.08287	16	9.88699	6	0.09836	16	9.89314	6
27	0.06773	18	9.88072	8	0.08312	18	9.88709	7	0.09862	18	9.89324	7
28	0.06799	21	9.88083	9	0.08338	21	9.88720	8	0.09888	21	9.89334	8
29	0.06825	23	9.88094	10	0.08364	23	9.88730	9	0.09914	23	9.89344	9
30	0.06850	26	9.88105	11	0.08390	26	9.88741	10	0.09939	26	9.89354	10
31	0.06876	3	9.88115	1	0.08415	3	9.88751	1	0.09965	3	9.89364	1
32	0.06901	5	9.88126	2	0.08441	5	9.88761	2	0.09991	5	9.89375	2
33	0.06927	8	9.88137	3	0.08467	8	9.88772	3	0.10017	8	9.89385	3
34	0.06952	10	9.88148	4	0.08493	10	9.88782	4	0.10043	10	9.89395	4
35	0.06978	13	9.88158	6	0.08518	13	9.88793	5	0.10069	13	9.89405	5
36	0.07004	16	9.88169	7	0.08544	16	9.88803	6	0.10095	16	9.89415	6
37	0.07029	18	9.88180	8	0.08570	18	9.88813	7	0.10121	18	9.89425	7
38	0.07055	21	9.88191	9	0.08596	21	9.88824	8	0.10147	21	9.89435	8
39	0.07080	23	9.88201	10	0.08621	23	9.88834	9	0.10173	23	9.89445	9
40	0.07106	26	9.88212	11	0.08647	26	9.88844	10	0.10199	26	9.89455	10
41	0.07132	3	9.88223	1	0.08673	3	9.88855	1	0.10225	3	9.89465	1
42	0.07157	5	9.88234	2	0.08699	5	9.88865	2	0.10251	5	9.89475	2
43	0.07183	8	9.88244	3	0.08724	8	9.88875	3	0.10277	8	9.89485	3
44	0.07208	10	9.88255	4	0.08750	10	9.88886	4	0.10303	10	9.89495	4
45	0.07234	13	9.88266	6	0.08776	13	9.88896	5	0.10329	13	9.89504	5
46	0.07260	16	9.88276	7	0.08802	16	9.88906	6	0.10355	16	9.89514	6
47	0.07285	18	9.88287	8	0.08828	18	9.88917	7	0.10381	18	9.89524	7
48	0.07311	21	9.88298	9	0.08853	21	9.88927	8	0.10407	21	9.89534	8
49	0.07337	23	9.88308	10	0.08879	23	9.88937	9	0.10433	23	9.89544	9
50	0.07362	26	9.88319	11	0.08905	26	9.88948	10	0.10459	26	9.89554	10
51	0.07388	3	9.88330	1	0.08931	3	9.88958	1	0.10485	3	9.89564	1
52	0.07413	5	9.88340	2	0.08957	5	9.88968	2	0.10511	5	9.89574	2
53	0.07439	8	9.88351	3	0.08982	8	9.88978	3	0.10537	8	9.89584	3
54	0.07465	10	9.88362	4	0.09008	10	9.88989	4	0.10563	10	9.89594	4
55	0.07490	13	9.88372	6	0.09034	13	9.88999	5	0.10589	13	9.89604	5
56	0.07516	16	9.88383	7	0.09060	16	9.89009	6	0.10615	16	9.89614	6
57	0.07542	18	9.88394	8	0.09086	18	9.89020	7	0.10641	18	9.89624	7
58	0.07567	21	9.88404	9	0.09111	21	9.89030	8	0.10667	21	9.89633	8
59	0.07593	23	9.88415	10	0.09137	23	9.89040	9	0.10693	23	9.89643	9
60	0.07619		9.88425		0.09163		9.89050		0.10719		9.89653	

′	52°				53°				54°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	0.10719	26	9.89653	10	0.12289	26	9.90235	9	0.13874	27	9.90796	9
1	0.10745	3	9.89663	1	0.12315	3	9.90244	1	0.13900	3	9.90805	1
2	0.10771	5	9.89673	2	0.12341	5	9.90254	2	0.13927	5	9.90814	2
3	0.10797	8	9.89683	3	0.12367	8	9.90263	3	0.13954	8	9.90823	3
4	0.10823	10	9.89693	4	0.12394	10	9.90273	4	0.13980	11	9.90832	4
5	0.10849	13	9.89702	5	0.12420	13	9.90282	5	0.14007	14	9.90842	5
6	0.10875	16	9.89712	6	0.12446	16	9.90292	5	0.14033	16	9.90851	5
7	0.10901	18	9.89722	7	0.12473	18	9.90301	6	0.14060	19	9.90860	6
8	0.10927	21	9.89732	8	0.12499	21	9.90311	7	0.14087	22	9.90869	7
9	0.10954	23	9.89742	9	0.12525	23	9.90320	8	0.14113	24	9.90878	8
10	0.10980	26	9.89752	10	0.12552	26	9.90330	9	0.14140	27	9.90887	9
11	0.11006	3	9.89761	1	0.12578	3	9.90339	1	0.14166	3	9.90896	1
12	0.11032	5	9.89771	2	0.12604	5	9.90349	2	0.14193	5	9.90906	2
13	0.11058	8	9.89781	3	0.12631	8	9.90358	3	0.14220	8	9.90915	3
14	0.11084	10	9.89791	4	0.12657	10	9.90368	4	0.14246	11	9.90924	4
15	0.11110	13	9.89801	5	0.12683	13	9.90377	5	0.14273	14	9.90933	5
16	0.11136	16	9.89810	6	0.12710	16	9.90386	5	0.14300	16	9.90942	5
17	0.11162	18	9.89820	7	0.12736	18	9.90396	6	0.14326	19	9.90951	6
18	0.11188	21	9.89830	8	0.12762	21	9.90405	7	0.14353	22	9.90960	7
19	0.11214	23	9.89840	9	0.12789	23	9.90415	8	0.14380	24	9.90969	8
20	0.11241	26	9.89849	10	0.12815	26	9.90424	9	0.14406	27	9.90978	9
21	0.11267	3	9.89859	1	0.12842	3	9.90434	1	0.14433	3	9.90987	1
22	0.11293	5	9.89869	2	0.12868	5	9.90443	2	0.14460	5	9.90996	2
23	0.11319	8	9.89879	3	0.12894	8	9.90452	3	0.14486	8	9.91005	3
24	0.11345	10	9.89888	4	0.12921	10	9.90462	4	0.14513	11	9.91014	4
25	0.11371	13	9.89898	5	0.12947	13	9.90471	5	0.14540	14	9.91023	5
26	0.11397	16	9.89908	6	0.12973	16	9.90480	5	0.14566	16	9.91033	5
27	0.11423	18	9.89918	7	0.13000	18	9.90490	6	0.14593	19	9.91042	6
28	0.11450	21	9.89927	8	0.13026	21	9.90499	7	0.14620	22	9.91051	7
29	0.11476	23	9.89937	9	0.13053	23	9.90509	8	0.14646	24	9.91060	8
30	0.11502	26	9.89947	10	0.13079	26	9.90518	9	0.14673	27	9.91069	9
31	0.11528	3	9.89956	1	0.13106	3	9.90527	1	0.14700	3	9.91078	1
32	0.11554	5	9.89966	2	0.13132	5	9.90537	2	0.14727	5	9.91087	2
33	0.11580	8	9.89976	3	0.13158	8	9.90546	3	0.14753	8	9.91096	3
34	0.11607	10	9.89985	4	0.13185	10	9.90555	4	0.14780	11	9.91105	4
35	0.11633	13	9.89995	5	0.13211	13	9.90565	5	0.14807	14	9.91114	5
36	0.11659	16	9.90005	6	0.13238	16	9.90574	5	0.14834	16	9.91123	5
37	0.11685	18	9.90014	7	0.13264	18	9.90583	6	0.14860	19	9.91132	6
38	0.11711	21	9.90024	8	0.13291	21	9.90592	7	0.14887	22	9.91141	7
39	0.11738	23	9.90034	9	0.13317	23	9.90602	8	0.14914	24	9.91149	8
40	0.11764	26	9.90043	10	0.13344	26	9.90611	9	0.14941	27	9.91158	9
41	0.11790	3	9.90053	1	0.13370	3	9.90620	1	0.14967	3	9.91167	1
42	0.11816	5	9.90063	2	0.13397	5	9.90630	2	0.14994	5	9.91176	2
43	0.11842	8	9.90072	3	0.13423	8	9.90639	3	0.15021	8	9.91185	3
44	0.11869	10	9.90082	4	0.13449	10	9.90648	4	0.15048	11	9.91194	4
45	0.11895	13	9.90091	5	0.13476	13	9.90657	5	0.15075	14	9.91203	5
46	0.11921	16	9.90101	6	0.13502	16	9.90667	5	0.15101	16	9.91212	5
47	0.11947	18	9.90111	7	0.13529	18	9.90676	6	0.15128	19	9.91221	6
48	0.11973	21	9.90120	8	0.13555	21	9.90685	7	0.15155	22	9.91230	7
49	0.12000	23	9.90130	9	0.13582	23	9.90694	8	0.15182	24	9.91239	8
50	0.12026	26	9.90139	10	0.13608	27	9.90704	9	0.15209	27	9.91248	9
51	0.12052	3	9.90149	1	0.13635	3	9.90713	1	0.15236	3	9.91257	1
52	0.12078	5	9.90159	2	0.13662	5	9.90722	2	0.15262	5	9.91266	2
53	0.12105	8	9.90168	3	0.13688	8	9.90731	3	0.15289	8	9.91274	3
54	0.12131	10	9.90178	4	0.13715	11	9.90741	4	0.15316	11	9.91283	4
55	0.12157	13	9.90187	5	0.13741	14	9.90750	5	0.15343	14	9.91292	5
56	0.12183	16	9.90197	6	0.13768	16	9.90759	5	0.15370	16	9.91301	5
57	0.12210	18	9.90206	7	0.13794	19	9.90768	6	0.15397	19	9.91310	6
58	0.12236	21	9.90216	8	0.13821	22	9.90777	7	0.15424	22	9.91319	7
59	0.12262	23	9.90225	9	0.13847	24	9.90787	8	0.15450	24	9.91328	8
60	0.12289		9.90235		0.13874		9.90796		0.15477		9.91336	

′	55°				56°				57°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	0.15477	27	9.91336	9	0.17101	27	9.91857	8	0.18748	28	9.92359	8
1	0.15504	3	9.91345	1	0.17129	3	9.91866	1	0.18776	3	9.92367	1
2	0.15531	5	9.91354	2	0.17156	5	9.91874	2	0.18804	6	9.92376	2
3	0.15558	8	9.91363	3	0.17183	8	9.91883	2	0.18831	8	9.92384	2
4	0.15585	11	9.91372	4	0.17210	11	9.91891	3	0.18859	11	9.92392	3
5	0.15612	14	9.91381	5	0.17238	14	9.91900	4	0.18887	14	9.92400	4
6	0.15639	16	9.91389	5	0.17265	16	9.91908	5	0.18914	17	9.92408	5
7	0.15666	19	9.91398	6	0.17292	19	9.91917	6	0.18942	20	9.92416	6
8	0.15693	22	9.91407	7	0.17319	22	9.91925	6	0.18970	22	9.92425	6
9	0.15720	24	9.91416	8	0.17347	24	9.91934	7	0.18997	25	9.92433	7
10	0.15746	27	9.91425	9	0.17374	27	9.91942	8	0.19025	28	9.92441	8
11	0.15773	3	9.91433	1	0.17401	3	9.91951	1	0.19053	3	9.92449	1
12	0.15800	5	9.91442	2	0.17429	5	9.91959	2	0.19081	6	9.92457	2
13	0.15827	8	9.91451	3	0.17456	8	9.91968	2	0.19108	8	9.92465	2
14	0.15854	11	9.91460	4	0.17483	11	9.91976	3	0.19136	11	9.92473	3
15	0.15881	14	9.91469	5	0.17511	14	9.91985	4	0.19164	14	9.92482	4
16	0.15908	16	9.91477	5	0.17538	16	9.91993	5	0.19192	17	9.92490	5
17	0.15935	19	9.91486	6	0.17565	19	9.92002	6	0.19219	20	9.92498	6
18	0.15962	22	9.91495	7	0.17593	22	9.92010	6	0.19247	22	9.92506	6
19	0.15989	24	9.91504	8	0.17620	24	9.92018	7	0.19275	25	9.92514	7
20	0.16016	27	9.91512	9	0.17648	27	9.92027	8	0.19303	28	9.92522	8
21	0.16043	3	9.91521	1	0.17675	3	9.92035	1	0.19331	3	9.92530	1
22	0.16070	5	9.91530	2	0.17702	5	9.92044	2	0.19358	6	9.92538	2
23	0.16097	8	9.91538	3	0.17730	8	9.92052	2	0.19386	8	9.92546	2
24	0.16124	11	9.91547	4	0.17757	11	9.92060	3	0.19414	11	9.92555	3
25	0.16151	14	9.91556	5	0.17785	14	9.92069	4	0.19442	14	9.92563	4
26	0.16178	16	9.91565	5	0.17812	16	9.92077	5	0.19470	17	9.92571	5
27	0.16205	19	9.91573	6	0.17839	19	9.92086	6	0.19498	20	9.92579	6
28	0.16232	22	9.91582	7	0.17867	22	9.92094	6	0.19526	22	9.92587	6
29	0.16260	24	9.91591	8	0.17894	24	9.92102	7	0.19553	25	9.92595	7
30	0.16287	27	9.91599	9	0.17922	27	9.92111	8	0.19581	28	9.92603	8
31	0.16314	3	9.91608	1	0.17949	3	9.92119	1	0.19609	3	9.92611	1
32	0.16341	5	9.91617	2	0.17977	5	9.92127	2	0.19637	6	9.92619	2
33	0.16368	8	9.91625	3	0.18004	8	9.92136	2	0.19665	8	9.92627	2
34	0.16395	11	9.91634	4	0.18032	11	9.92144	3	0.19693	11	9.92635	3
35	0.16422	14	9.91643	5	0.18059	14	9.92152	4	0.19721	14	9.92643	4
36	0.16449	16	9.91651	5	0.18087	16	9.92161	5	0.19749	17	9.92651	5
37	0.16476	19	9.91660	6	0.18114	19	9.92169	6	0.19777	20	9.92659	6
38	0.16503	22	9.91669	7	0.18142	22	9.92177	6	0.19805	22	9.92667	6
39	0.16530	24	9.91677	8	0.18169	24	9.92186	7	0.19832	25	9.92675	7
40	0.16558	27	9.91686	9	0.18197	28	9.92194	8	0.19860	28	9.92683	8
41	0.16585	3	9.91695	1	0.18224	3	9.92202	1	0.19888	3	9.92691	1
42	0.16612	5	9.91703	2	0.18252	6	9.92211	2	0.19916	6	9.92699	2
43	0.16639	8	9.91712	3	0.18279	8	9.92219	2	0.19944	8	9.92707	2
44	0.16666	11	9.91720	4	0.18307	11	9.92227	3	0.19972	11	9.92715	3
45	0.16693	14	9.91729	5	0.18334	14	9.92235	4	0.20000	14	9.92723	4
46	0.16720	16	9.91738	5	0.18362	17	9.92244	5	0.20028	17	9.92731	5
47	0.16748	19	9.91746	6	0.18389	20	9.92252	6	0.20056	20	9.92739	6
48	0.16775	22	9.91755	7	0.18417	22	9.92260	6	0.20084	22	9.92747	6
49	0.16802	24	9.91763	8	0.18444	25	9.92269	7	0.20112	25	9.92755	7
50	0.16829	27	9.91772	9	0.18472	28	9.92277	8	0.20140	28	9.92763	8
51	0.16856	3	9.91781	1	0.18500	3	9.92285	1	0.20168	3	9.92771	1
52	0.16883	5	9.91789	2	0.18527	6	9.92293	2	0.20196	6	9.92779	2
53	0.16911	8	9.91798	3	0.18555	8	9.92302	2	0.20224	8	9.92787	2
54	0.16938	11	9.91806	4	0.18582	11	9.92310	3	0.20253	11	9.92795	3
55	0.16965	14	9.91815	5	0.18610	14	9.92318	4	0.20281	14	9.92803	4
56	0.16992	16	9.91823	5	0.18638	17	9.92326	5	0.20309	17	9.92810	5
57	0.17020	19	9.91832	6	0.18665	20	9.92335	6	0.20337	20	9.92818	6
58	0.17047	22	9.91840	7	0.18693	22	9.92343	6	0.20365	22	9.92826	6
59	0.17074	24	9.91849	8	0.18721	25	9.92351	7	0.20393	25	9.92834	7
60	0.17101		9.91857		0.18748		9.92359		0.20421		9.92842	

′	58°				59°				60°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	0.20421	28	9.92842	8	0.22123	29	9.93307	8	0.23856	29	9.93753	7
1	0.20449	3	9.92850	1	0.22151	3	9.93314	1	0.23885	3	9.93760	1
2	0.20477	6	9.92858	2	0.22180	6	9.93322	2	0.23914	6	9.93768	1
3	0.20505	8	9.92866	2	0.22209	9	9.93329	2	0.23944	9	9.93775	2
4	0.20534	11	9.92874	3	0.22237	12	9.93337	3	0.23973	12	9.93782	3
5	0.20562	14	9.92881	4	0.22266	15	9.93344	4	0.24002	15	9.93789	4
6	0.20590	17	9.92889	5	0.22294	17	9.93352	5	0.24031	17	9.93797	4
7	0.20618	20	9.92897	6	0.22323	20	9.93360	6	0.24061	20	9.93804	5
8	0.20646	22	9.92905	6	0.22352	23	9.93367	6	0.24090	23	9.93811	6
9	0.20674	25	9.92913	7	0.22381	26	9.93375	7	0.24119	26	9.93819	6
10	0.20703	28	9.92921	8	0.22409	29	9.93382	8	0.24148	29	9.93826	7
11	0.20731	3	9.92929	1	0.22438	3	9.93390	1	0.24178	3	9.93833	1
12	0.20759	6	9.92936	2	0.22467	6	9.93397	2	0.24207	6	9.93840	1
13	0.20787	8	9.92944	2	0.22495	9	9.93405	2	0.24236	9	9.93847	2
14	0.20815	11	9.92952	3	0.22524	12	9.93412	3	0.24265	12	9.93855	3
15	0.20844	14	9.92960	4	0.22553	15	9.93420	4	0.24295	15	9.93862	4
16	0.20872	17	9.92968	5	0.22582	17	9.93427	5	0.24324	17	9.93869	4
17	0.20900	20	9.92976	6	0.22610	20	9.93435	6	0.24353	20	9.93876	5
18	0.20928	22	9.92983	6	0.22639	23	9.93442	6	0.24383	23	9.93884	6
19	0.20957	25	9.92991	7	0.22668	26	9.93450	7	0.24412	26	9.93891	6
20	0.20985	28	9.92999	8	0.22697	29	9.93457	7	0.24442	29	9.93898	7
21	0.21013	3	9.93007	1	0.22726	3	9.93465	1	0.24471	3	9.93905	1
22	0.21041	6	9.93014	2	0.22754	6	9.93472	1	0.24500	6	9.93912	1
23	0.21070	8	9.93022	2	0.22783	9	9.93480	2	0.24530	9	9.93920	2
24	0.21098	11	9.93030	3	0.22812	12	9.93487	3	0.24559	12	9.93927	3
25	0.21126	14	9.93038	4	0.22841	15	9.93495	4	0.24589	15	9.93934	4
26	0.21155	17	9.93046	5	0.22870	17	9.93502	4	0.24618	17	9.93941	4
27	0.21183	20	9.93053	6	0.22899	20	9.93510	5	0.24647	20	9.93948	5
28	0.21211	22	9.93061	6	0.22927	23	9.93517	6	0.24677	23	9.93955	6
29	0.21240	25	9.93069	7	0.22956	26	9.93525	6	0.24706	26	9.93963	6
30	0.21268	28	9.93077	8	0.22985	29	9.93532	7	0.24736	30	9.93970	7
31	0.21296	3	9.93084	1	0.23014	3	9.93539	1	0.24765	3	9.93977	1
32	0.21325	6	9.93092	2	0.23043	6	9.93547	1	0.24795	6	9.93984	1
33	0.21353	8	9.93100	2	0.23072	9	9.93554	2	0.24824	9	9.93991	2
34	0.21382	11	9.93108	3	0.23101	12	9.93562	3	0.24854	12	9.93998	3
35	0.21410	14	9.93115	4	0.23130	15	9.93569	4	0.24883	15	9.94005	4
36	0.21438	17	9.93123	5	0.23159	17	9.93577	4	0.24913	18	9.94012	4
37	0.21467	20	9.93131	6	0.23188	20	9.93584	5	0.24942	21	9.94020	5
38	0.21495	22	9.93138	6	0.23217	23	9.93591	6	0.24972	24	9.94027	6
39	0.21524	25	9.93146	7	0.23246	26	9.93599	6	0.25002	27	9.94034	6
40	0.21552	28	9.93154	8	0.23275	29	9.93606	7	0.25031	30	9.94041	7
41	0.21581	3	9.93161	1	0.23303	3	9.93614	1	0.25061	3	9.94048	1
42	0.21609	6	9.93169	2	0.23332	6	9.93621	1	0.25090	6	9.94055	1
43	0.21637	8	9.93177	2	0.23361	9	9.93628	2	0.25120	9	9.94062	2
44	0.21666	11	9.93184	3	0.23391	12	9.93636	3	0.25149	12	9.94069	3
45	0.21694	14	9.93192	4	0.23420	15	9.93643	4	0.25179	15	9.94076	4
46	0.21723	17	9.93200	5	0.23449	17	9.93650	4	0.25209	18	9.94083	4
47	0.21751	20	9.93207	6	0.23478	20	9.93658	5	0.25238	21	9.94090	5
48	0.21780	22	9.93215	6	0.23507	23	9.93665	6	0.25268	24	9.94098	6
49	0.21808	25	9.93223	7	0.23536	26	9.93673	6	0.25298	27	9.94105	6
50	0.21837	29	9.93230	8	0.23565	29	9.93680	7	0.25327	30	9.94112	7
51	0.21865	3	9.93238	1	0.23594	3	9.93687	1	0.25357	3	9.94119	1
52	0.21894	6	9.93246	2	0.23623	6	9.93695	1	0.25387	6	9.94126	1
53	0.21923	9	9.93253	2	0.23652	9	9.93702	2	0.25417	9	9.94133	2
54	0.21951	12	9.93261	3	0.23681	12	9.93709	3	0.25446	12	9.94140	3
55	0.21980	15	9.93269	4	0.23710	15	9.93717	4	0.25476	15	9.94147	4
56	0.22008	17	9.93276	5	0.23739	17	9.93724	4	0.25506	18	9.94154	4
57	0.22037	20	9.93284	6	0.23769	20	9.93731	5	0.25535	21	9.94161	5
58	0.22065	23	9.93291	6	0.23798	23	9.93738	6	0.25565	24	9.94168	6
59	0.22094	26	9.93299	7	0.23827	26	9.93746	6	0.25595	27	9.94175	6
60	0.22123		9.93307		0.23856		9.93753		0.25625		9.94182	

′	61°				62°				63°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	0.25625	30	9.94182	7	0.27433	31	9.94593	7	0.29283	31	9.94988	6
1	0.25655	3	9.94189	1	0.27463	3	9.94600	1	0.29315	3	9.94995	1
2	0.25684	6	9.94196	1	0.27494	6	9.94607	1	0.29346	6	9.95001	1
3	0.25714	9	9.94203	2	0.27524	9	9.94614	2	0.29377	9	9.95007	2
4	0.25744	12	9.94210	3	0.27555	12	9.94620	3	0.29408	12	9.95014	2
5	0.25774	15	9.94217	4	0.27585	16	9.94627	4	0.29440	16	9.95020	3
6	0.25804	18	9.94224	4	0.27616	19	9.94634	4	0.29471	19	9.95027	4
7	0.25834	21	9.94231	5	0.27646	22	9.94640	5	0.29502	22	9.95033	4
8	0.25863	24	9.94238	6	0.27677	25	9.94647	6	0.29534	25	9.95039	5
9	0.25893	27	9.94245	6	0.27707	28	9.94654	6	0.29565	28	9.95046	5
10	0.25923	30	9.94252	7	0.27738	31	9.94660	7	0.29596	31	9.95052	6
11	0.25953	3	9.94259	1	0.27769	3	9.94667	1	0.29628	3	9.95059	1
12	0.25983	6	9.94266	1	0.27799	6	9.94674	1	0.29659	6	9.95065	1
13	0.26013	9	9.94273	2	0.27830	9	9.94680	2	0.29691	9	9.95071	2
14	0.26043	12	9.94279	3	0.27860	12	9.94687	3	0.29722	12	9.95078	2
15	0.26073	15	9.94286	4	0.27891	16	9.94694	4	0.29753	16	9.95084	3
16	0.26103	18	9.94293	4	0.27922	19	9.94700	4	0.29785	19	9.95090	4
17	0.26133	21	9.94300	5	0.27952	22	9.94707	5	0.29816	22	9.95097	4
18	0.26163	24	9.94307	6	0.27983	25	9.94714	6	0.29848	25	9.95103	5
19	0.26193	27	9.94314	6	0.28014	28	9.94720	6	0.29879	28	9.95110	5
20	0.26223	30	9.94321	7	0.28045	31	9.94727	7	0.29911	32	9.95116	6
21	0.26253	3	9.94328	1	0.28075	3	9.94734	1	0.29942	3	9.95122	1
22	0.26283	6	9.94335	1	0.28106	6	9.94740	1	0.29974	6	9.95129	1
23	0.26313	9	9.94342	2	0.28137	9	9.94747	2	0.30005	10	9.95135	2
24	0.26343	12	9.94349	3	0.28167	12	9.94753	3	0.30037	13	9.95141	2
25	0.26373	15	9.94355	4	0.28198	16	9.94760	4	0.30068	16	9.95148	3
26	0.26403	18	9.94362	4	0.28229	19	9.94767	4	0.30100	19	9.95154	4
27	0.26433	21	9.94369	5	0.28260	22	9.94773	5	0.30132	22	9.95160	4
28	0.26463	24	9.94376	6	0.28291	25	9.94780	6	0.30163	26	9.95167	5
29	0.26493	27	9.94383	6	0.28321	28	9.94786	6	0.30195	29	9.95173	5
30	0.26524	30	9.94390	7	0.28352	31	9.94793	7	0.30226	32	9.95179	6
31	0.26554	3	9.94397	1	0.28383	3	9.94799	1	0.30258	3	9.95185	1
32	0.26584	6	9.94404	1	0.28414	6	9.94806	1	0.30290	6	9.95192	1
33	0.26614	9	9.94410	2	0.28445	9	9.94813	2	0.30321	10	9.95198	2
34	0.26644	12	9.94417	3	0.28476	12	9.94819	3	0.30353	13	9.95204	2
35	0.26674	15	9.94424	4	0.28507	16	9.94826	4	0.30385	16	9.95211	3
36	0.26705	18	9.94431	4	0.28538	19	9.94832	4	0.30416	19	9.95217	4
37	0.26735	21	9.94438	5	0.28569	22	9.94839	5	0.30448	22	9.95223	4
38	0.26765	24	9.94445	6	0.28599	25	9.94845	6	0.30480	26	9.95229	5
39	0.26795	27	9.94451	6	0.28630	28	9.94852	6	0.30512	29	9.95236	5
40	0.26825	30	9.94458	7	0.28661	31	9.94858	7	0.30543	32	9.95242	6
41	0.26856	3	9.94465	1	0.28692	3	9.94865	1	0.30575	3	9.95248	1
42	0.26886	6	9.94472	1	0.28723	6	9.94871	1	0.30607	6	9.95254	1
43	0.26916	9	9.94479	2	0.28754	9	9.94878	2	0.30639	10	9.95261	2
44	0.26946	12	9.94485	3	0.28785	12	9.94885	3	0.30671	13	9.95267	2
45	0.26977	15	9.94492	4	0.28816	16	9.94891	4	0.30702	16	9.95273	3
46	0.27007	18	9.94499	4	0.28847	19	9.94898	4	0.30734	19	9.95279	4
47	0.27037	21	9.94506	5	0.28879	22	9.94904	5	0.30766	22	9.95286	4
48	0.27068	24	9.94513	6	0.28910	25	9.94911	6	0.30798	26	9.95292	5
49	0.27098	27	9.94519	6	0.28941	28	9.94917	6	0.30830	29	9.95298	5
50	0.27128	30	9.94526	7	0.28972	31	9.94923	6	0.30862	32	9.95304	6
51	0.27159	3	9.94533	1	0.29003	3	9.94930	1	0.30894	3	9.95310	1
52	0.27189	6	9.94540	1	0.29034	6	9.94936	1	0.30926	6	9.95317	1
53	0.27220	9	9.94546	2	0.29065	9	9.94943	2	0.30958	10	9.95323	2
54	0.27250	12	9.94553	3	0.29096	12	9.94949	2	0.30990	13	9.95329	2
55	0.27280	15	9.94560	4	0.29127	16	9.94956	3	0.31022	16	9.95335	3
56	0.27311	18	9.94567	4	0.29159	19	9.94962	4	0.31054	19	9.95341	4
57	0.27341	21	9.94573	5	0.29190	22	9.94969	4	0.31086	22	9.95348	4
58	0.27372	24	9.94580	6	0.29221	25	9.94975	5	0.31118	26	9.95354	5
59	0.27402	27	9.94587	6	0.29252	28	9.94982	5	0.31150	29	9.95360	5
60	0.27433		9.94593		0.29283		9.94988		0.31182		9.95366	

′	64°				65°				66°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	0.31182	32	9.95366	6	0.33133	33	9.95728	6	0.35142	34	9.96073	6
1	0.31214	3	9.95372	1	0.33166	3	9.95733	1	0.35176	3	9.96079	1
2	0.31246	6	9.95378	1	0.33199	7	9.95739	1	0.35210	7	9.96084	1
3	0.31278	10	9.95384	2	0.33232	10	9.95745	2	0.35244	10	9.96090	2
4	0.31310	13	9.95391	2	0.33265	13	9.95751	2	0.35278	14	9.96095	2
5	0.31342	16	9.95397	3	0.33298	17	9.95757	3	0.35312	17	9.96101	3
6	0.31374	19	9.95403	4	0.33331	20	9.95763	4	0.35346	20	9.96107	4
7	0.31407	22	9.95409	4	0.33364	23	9.95769	4	0.35380	24	9.96112	4
8	0.31439	26	9.95415	5	0.33397	26	9.95775	5	0.35414	27	9.96118	5
9	0.31471	29	9.95421	5	0.33430	30	9.95780	5	0.35448	31	9.96123	5
10	0.31503	32	9.95427	6	0.33463	33	9.95786	6	0.35483	34	9.96129	6
11	0.31535	3	9.95434	1	0.33497	3	9.95792	1	0.35517	3	9.96135	1
12	0.31568	6	9.95440	1	0.33530	7	9.95798	1	0.35551	7	9.96140	1
13	0.31600	10	9.95446	2	0.33563	10	9.95804	2	0.35585	10	9.96146	2
14	0.31632	13	9.95452	2	0.33596	13	9.95810	2	0.35619	14	9.96151	2
15	0.31664	16	9.95458	3	0.33629	17	9.95815	3	0.35654	17	9.96157	3
16	0.31697	19	9.95464	4	0.33663	20	9.95821	4	0.35688	20	9.96162	4
17	0.31729	22	9.95470	4	0.33696	23	9.95827	4	0.35722	24	9.96168	4
18	0.31761	26	9.95476	5	0.33729	26	9.95833	5	0.35757	27	9.96174	5
19	0.31794	29	9.95482	5	0.33762	30	9.95839	5	0.35791	31	9.96179	5
20	0.31826	32	9.95488	6	0.33796	33	9.95844	6	0.35825	34	9.96185	6
21	0.31858	3	9.95494	1	0.33829	3	9.95850	1	0.35860	3	9.96190	1
22	0.31891	6	9.95500	1	0.33862	7	9.95856	1	0.35894	7	9.96196	1
23	0.31923	10	9.95507	2	0.33896	10	9.95862	2	0.35928	10	9.96201	2
24	0.31956	13	9.95513	2	0.33929	13	9.95868	2	0.35963	14	9.96207	2
25	0.31988	16	9.95519	3	0.33962	17	9.95873	3	0.35997	17	9.96212	3
26	0.32020	19	9.95525	4	0.33996	20	9.95879	4	0.36032	20	9.96218	4
27	0.32053	22	9.95531	4	0.34029	23	9.95885	4	0.36066	24	9.96223	4
28	0.32085	26	9.95537	5	0.34063	26	9.95891	5	0.36101	27	9.96229	5
29	0.32118	29	9.95543	5	0.34096	30	9.95897	5	0.36135	31	9.96234	5
30	0.32150	33	9.95549	6	0.34130	34	9.95902	6	0.36170	35	9.96240	5
31	0.32183	3	9.95555	1	0.34163	3	9.95908	1	0.36204	4	9.96245	1
32	0.32215	7	9.95561	1	0.34197	7	9.95914	1	0.36239	7	9.96251	1
33	0.32248	10	9.95567	2	0.34230	10	9.95920	2	0.36274	11	9.96256	2
34	0.32281	13	9.95573	2	0.34264	14	9.95925	2	0.36308	14	9.96262	2
35	0.32313	17	9.95579	3	0.34297	17	9.95931	3	0.36343	18	9.96267	3
36	0.32346	20	9.95585	4	0.34331	20	9.95937	4	0.36377	21	9.96273	3
37	0.32378	23	9.95591	4	0.34364	24	9.95942	4	0.36412	25	9.96278	4
38	0.32411	26	9.95597	5	0.34398	27	9.95948	5	0.36447	28	9.96284	4
39	0.32444	30	9.95603	5	0.34432	31	9.95954	5	0.36481	32	9.96289	5
40	0.32476	33	9.95609	6	0.34465	34	9.95960	6	0.36516	35	9.96294	5
41	0.32509	3	9.95615	1	0.34499	3	9.95965	1	0.36551	4	9.96300	1
42	0.32542	7	9.95621	1	0.34533	7	9.95971	1	0.36586	7	9.96305	1
43	0.32574	10	9.95627	2	0.34566	10	9.95977	2	0.36621	11	9.96311	2
44	0.32607	13	9.95633	2	0.34600	14	9.95982	2	0.36655	14	9.96316	2
45	0.32640	17	9.95639	3	0.34634	17	9.95988	3	0.36690	18	9.96322	3
46	0.32673	20	9.95645	4	0.34667	20	9.95994	4	0.36725	21	9.96327	3
47	0.32705	23	9.95651	4	0.34701	24	9.96000	4	0.36760	25	9.96333	4
48	0.32738	26	9.95657	5	0.34735	27	9.96005	5	0.36795	28	9.96338	4
49	0.32771	30	9.95663	5	0.34769	31	9.96011	5	0.36830	32	9.96343	5
50	0.32804	33	9.95668	6	0.34803	34	9.96017	6	0.36865	35	9.96349	5
51	0.32837	3	9.95674	1	0.34836	3	9.96022	1	0.36899	4	9.96354	1
52	0.32869	7	9.95680	1	0.34870	7	9.96028	1	0.36934	7	9.96360	1
53	0.32902	10	9.95686	2	0.34904	10	9.96034	2	0.36969	11	9.96365	2
54	0.32935	13	9.95692	2	0.34938	14	9.96039	2	0.37004	14	9.96370	2
55	0.32968	17	9.95698	3	0.34972	17	9.96045	3	0.37039	18	9.96376	3
56	0.33001	20	9.95704	4	0.35006	20	9.96050	4	0.37074	21	9.96381	3
57	0.33034	23	9.95710	4	0.35040	24	9.96056	4	0.37110	25	9.96387	4
58	0.33067	26	9.95716	5	0.35074	27	9.96062	5	0.37145	28	9.96392	4
59	0.33100	30	9.95722	5	0.35108	31	9.96067	5	0.37180	32	9.96397	5
60	0.33133		9.95728		0.35142		9.96073		0.37215		9.96403	

′	67°				68°				69°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	0.37215	**35**	9.96403	**5**	0.39359	**36**	9.96717	**5**	0.41582	**38**	9.97015	**5**
1	0.37250	4	9.96408	1	0.39395	4	9.96722	1	0.41620	4	9.97020	1
2	0.37285	7	9.96413	1	0.39432	7	9.96727	1	0.41658	8	9.97025	1
3	0.37320	11	9.96419	2	0.39468	11	9.96732	2	0.41696	11	9.97030	2
4	0.37355	14	9.96424	2	0.39505	14	9.96737	2	0.41733	15	9.97035	2
5	0.37391	18	9.96429	3	0.39541	18	9.96742	3	0.41771	19	9.97039	3
6	0.37426	21	9.96435	3	0.39578	22	9.96747	3	0.41809	23	9.97044	3
7	0.37461	25	9.96440	4	0.39614	25	9.96752	4	0.41847	27	9.97049	4
8	0.37496	28	9.96445	4	0.39651	29	9.96757	4	0.41885	30	9.97054	4
9	0.37532	32	9.96451	5	0.39687	32	9.96762	5	0.41923	34	9.97059	5
10	0.37567	**35**	9.96456	**5**	0.39724	**37**	9.96767	**5**	0.41961	**38**	9.97063	**5**
11	0.37602	4	9.96461	1	0.39760	4	9.96772	1	0.41999	4	9.97068	1
12	0.37638	7	9.96467	1	0.39797	7	9.96778	1	0.42037	8	9.97073	1
13	0.37673	11	9.96472	2	0.39834	11	9.96783	2	0.42075	11	9.97078	2
14	0.37708	14	9.96477	2	0.39870	15	9.96788	2	0.42113	15	9.97083	2
15	0.37744	18	9.96483	3	0.39907	19	9.96793	3	0.42151	19	9.97087	3
16	0.37779	21	9.96488	3	0.39944	22	9.96798	3	0.42190	23	9.97092	3
17	0.37815	25	9.96493	4	0.39981	26	9.96803	4	0.42228	27	9.97097	4
18	0.37850	28	9.96498	4	0.40017	30	9.96808	4	0.42266	30	9.97102	4
19	0.37886	32	9.96504	5	0.40054	33	9.96813	5	0.42304	34	9.97107	5
20	0.37921	**36**	9.96509	**5**	0.40091	**37**	9.96818	**5**	0.42342	**38**	9.97111	**5**
21	0.37957	4	9.96514	1	0.40128	4	9.96823	1	0.42381	4	9.97116	1
22	0.37992	7	9.96520	1	0.40165	7	9.96828	1	0.42419	8	9.97121	1
23	0.38028	11	9.96525	2	0.40201	11	9.96833	2	0.42457	11	9.97126	2
24	0.38064	14	9.96530	2	0.40238	15	9.96838	2	0.42496	15	9.97130	2
25	0.38099	18	9.96535	3	0.40275	19	9.96843	3	0.42534	19	9.97135	3
26	0.38135	22	9.96541	3	0.40312	22	9.96848	3	0.42572	23	9.97140	3
27	0.38170	25	9.96546	4	0.40349	26	9.96853	4	0.42611	27	9.97145	4
28	0.38206	29	9.96551	4	0.40386	30	9.96858	4	0.42649	30	9.97149	4
29	0.38242	32	9.96556	5	0.40423	33	9.96863	5	0.42688	34	9.97154	5
30	0.38278	**36**	9.96562	**5**	0.40460	**37**	9.96868	**5**	0.42726	**39**	9.97159	**5**
31	0.38313	4	9.96567	1	0.40497	4	9.96873	1	0.42765	4	9.97163	1
32	0.38349	7	9.96572	1	0.40534	7	9.96878	1	0.42803	8	9.97168	1
33	0.38385	11	9.96577	2	0.40571	11	9.96883	2	0.42842	12	9.97173	2
34	0.38421	14	9.96582	2	0.40609	15	9.96888	2	0.42880	16	9.97178	2
35	0.38456	18	9.96588	3	0.40646	19	9.96893	3	0.42919	20	9.97182	3
36	0.38492	22	9.96593	3	0.40683	22	9.96898	3	0.42958	23	9.97187	3
37	0.38528	25	9.96598	4	0.40720	26	9.96903	4	0.42996	27	9.97192	4
38	0.38564	29	9.96603	4	0.40757	30	9.96907	4	0.43035	31	9.97196	4
39	0.38600	32	9.96608	5	0.40795	33	9.96912	5	0.43074	35	9.97201	5
40	0.38636	**36**	9.96614	**5**	0.40832	**37**	9.96917	**5**	0.43113	**39**	9.97206	**5**
41	0.38672	4	9.96619	1	0.40869	4	9.96922	1	0.43151	4	9.97210	1
42	0.38708	7	9.96624	1	0.40906	7	9.96927	1	0.43190	8	9.97215	1
43	0.38744	11	9.96629	2	0.40944	11	9.96932	2	0.43229	12	9.97220	2
44	0.38780	14	9.96634	2	0.40981	15	9.96937	2	0.43268	16	9.97224	2
45	0.38816	18	9.96640	3	0.41019	19	9.96942	3	0.43307	20	9.97229	3
46	0.38852	22	9.96645	3	0.41056	22	9.96947	3	0.43346	23	9.97234	3
47	0.38888	25	9.96650	4	0.41093	26	9.96952	4	0.43385	27	9.97238	4
48	0.38924	29	9.96655	4	0.41131	30	9.96957	4	0.43424	31	9.97243	4
49	0.38960	32	9.96660	5	0.41168	33	9.96962	5	0.43463	35	9.97248	5
50	0.38996	**36**	9.96665	**5**	0.41206	**38**	9.96966	**5**	0.43502	**39**	9.97252	**5**
51	0.39033	4	9.96670	1	0.41243	4	9.96971	1	0.43541	4	9.97257	1
52	0.39069	7	9.96676	1	0.41281	8	9.96976	1	0.43580	8	9.97262	1
53	0.39105	11	9.96681	2	0.41319	11	9.96981	2	0.43619	12	9.97266	2
54	0.39141	14	9.96686	2	0.41356	15	9.96986	2	0.43658	16	9.97271	2
55	0.39177	18	9.96691	3	0.41394	19	9.96991	3	0.43697	20	9.97276	3
56	0.39214	22	9.96696	3	0.41431	23	9.96996	3	0.43736	23	9.97280	3
57	0.39250	25	9.96701	4	0.41469	27	9.97001	4	0.43776	27	9.97285	4
58	0.39286	29	9.96706	4	0.41507	30	9.97005	4	0.43815	31	9.97289	4
59	0.39323	32	9.96711	5	0.41545	34	9.97010	5	0.43854	35	9.97294	5
60	0.39359		9.96717		0.41582		9.97015		0.43893		9.97299	

′	70°				71°				72°			
	K_2		A_1		K_2		A_1		K_2		A_1	
	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.	L. Tan.	P.P.	L. Sin.	P.P.
0	0.43893	**39**	9.97299	**5**	0.46303	**41**	9.97567	**4**	0.48822	**43**	9.97821	**4**
1	0.43933	4	9.97303	1	0.46344	4	9.97571	0	0.48865	4	9.97825	0
2	0.43972	8	9.97308	1	0.46385	8	9.97576	1	0.48908	9	9.97829	1
3	0.44011	12	9.97312	2	0.46426	12	9.97580	1	0.48952	13	9.97833	1
4	0.44051	16	9.97317	2	0.46467	16	9.97584	2	0.48995	17	9.97837	2
5	0.44090	20	9.97322	3	0.46508	21	9.97589	2	0.49038	22	9.97841	2
6	0.44130	23	9.97326	3	0.46550	25	9.97593	2	0.49081	26	9.97845	2
7	0.44169	27	9.97331	4	0.46591	29	9.97597	3	0.49124	30	9.97849	3
8	0.44209	31	9.97335	4	0.46632	33	9.97602	3	0.49167	34	9.97853	3
9	0.44248	35	9.97340	5	0.46673	37	9.97606	4	0.49211	39	9.97857	4
10	0.44288	**40**	9.97344	**5**	0.46715	**42**	9.97610	**4**	0.49254	**44**	9.97861	**4**
11	0.44327	4	9.97349	1	0.46756	4	9.97615	0	0.49297	4	9.97866	0
12	0.44367	8	9.97353	1	0.46798	8	9.97619	1	0.49341	9	9.97870	1
13	0.44407	12	9.97358	2	0.46839	13	9.97623	1	0.49384	13	9.97874	1
14	0.44446	16	9.97363	2	0.46880	17	9.97628	2	0.49428	18	9.97878	2
15	0.44486	20	9.97367	3	0.46922	21	9.97632	2	0.49471	22	9.97882	2
16	0.44526	24	9.97372	3	0.46963	25	9.97636	2	0.49515	26	9.97886	2
17	0.44566	28	9.97376	4	0.47005	29	9.97640	3	0.49558	31	9.97890	3
18	0.44605	32	9.97381	4	0.47047	34	9.97645	3	0.49602	35	9.97894	3
19	0.44645	36	9.97385	5	0.47088	38	9.97649	4	0.49645	40	9.97898	4
20	0.44685	**40**	9.97390	**4**	0.47130	**42**	9.97653	**4**	0.49689	**44**	9.97902	**4**
21	0.44725	4	9.97394	0	0.47171	4	9.97657	0	0.49733	4	9.97906	0
22	0.44765	8	9.97399	1	0.47213	8	9.97662	1	0.49777	9	9.97910	1
23	0.44805	12	9.97403	1	0.47255	13	9.97666	1	0.49820	13	9.97914	1
24	0.44845	16	9.97408	2	0.47297	17	9.97670	2	0.49864	18	9.97918	2
25	0.44885	20	9.97412	2	0.47339	21	9.97674	2	0.49908	22	9.97922	2
26	0.44925	24	9.97417	2	0.47380	25	9.97679	2	0.49952	26	9.97926	2
27	0.44965	28	9.97421	3	0.47422	29	9.97683	3	0.49996	31	9.97930	3
28	0.45005	32	9.97426	3	0.47464	34	9.97687	3	0.50040	35	9.97934	3
29	0.45045	36	9.97430	4	0.47506	38	9.97691	4	0.50084	40	9.97938	4
30	0.45085	**40**	9.97435	**4**	0.47548	**42**	9.97696	**4**	0.50128	**44**	9.97942	**4**
31	0.45125	4	9.97439	0	0.47590	4	9.97700	0	0.50172	4	9.97946	0
32	0.45165	8	9.97444	1	0.47632	8	9.97704	1	0.50216	9	9.97950	1
33	0.45206	12	9.97448	1	0.47674	13	9.97708	1	0.50260	13	9.97954	1
34	0.45246	16	9.97453	2	0.47716	17	9.97713	2	0.50304	18	9.97958	2
35	0.45286	20	9.97457	2	0.47758	21	9.97717	2	0.50348	22	9.97962	2
36	0.45327	24	9.97461	2	0.47800	25	9.97721	2	0.50393	26	9.97966	2
37	0.45367	28	9.97466	3	0.47843	29	9.97725	3	0.50437	31	9.97970	3
38	0.45407	32	9.97470	3	0.47885	34	9.97729	3	0.50481	35	9.97974	3
39	0.45448	36	9.97475	4	0.47927	38	9.97734	4	0.50526	40	9.97978	4
40	0.45488	**41**	9.97479	**4**	0.47969	**42**	9.97738	**4**	0.50570	**45**	9.97982	**4**
41	0.45529	4	9.97484	0	0.48012	4	9.97742	0	0.50615	5	9.97986	0
42	0.45569	8	9.97488	1	0.48054	8	9.97746	1	0.50659	9	9.97989	1
43	0.45610	12	9.97492	1	0.48097	13	9.97750	1	0.50704	14	9.97993	1
44	0.45650	16	9.97497	2	0.48139	17	9.97754	2	0.50748	18	9.97997	2
45	0.45691	21	9.97501	2	0.48181	21	9.97759	2	0.50793	23	9.98001	2
46	0.45731	25	9.97506	2	0.48224	25	9.97763	2	0.50837	27	9.98005	2
47	0.45772	29	9.97510	3	0.48266	29	9.97767	3	0.50882	32	9.98009	3
48	0.45813	33	9.97515	3	0.48309	34	9.97771	3	0.50927	36	9.98013	3
49	0.45853	37	9.97519	4	0.48352	38	9.97775	4	0.50971	41	9.98017	4
50	0.45894	**41**	9.97523	**4**	0.48394	**43**	9.97779	**4**	0.51016	**45**	9.98021	**4**
51	0.45935	4	9.97528	0	0.48437	4	9.97784	0	0.51061	5	9.98025	0
52	0.45975	8	9.97532	1	0.48480	9	9.97788	1	0.51106	9	9.98029	1
53	0.46016	12	9.97536	1	0.48522	13	9.97792	1	0.51151	14	9.98032	1
54	0.46057	16	9.97541	2	0.48565	17	9.97796	2	0.51196	18	9.98036	2
55	0.46098	21	9.97545	2	0.48608	22	9.97800	2	0.51241	23	9.98040	2
56	0.46139	25	9.97550	2	0.48651	26	9.97804	2	0.51286	27	9.98044	2
57	0.46180	29	9.97554	3	0.48694	30	9.97808	3	0.51331	32	9.98048	3
58	0.46221	33	9.97558	3	0.48736	34	9.97812	3	0.51376	36	9.98052	3
59	0.46262	37	9.97563	4	0.48779	39	9.97817	4	0.51421	41	9.98056	4
60	0.46303		9.97567		0.48822		9.97821		0.51466		9.98060	

′	73°			74°			75°			76°		
	K_2		A_1	K_2		A_1	K_2		A_1	K_2		A_1
	L. Tan.	P.P.	L. Sin.	L. Tan.	P.P.	L. Sin.	L. Tan.	P.P.	L. Sin.	L. Tan.	P.P.	L. Sin.
0	0.51466	**45**	9.98060	0.54250	**48**	9.98284	0.57195	**51**	9.98494	0.60323	**54**	9.98690
1	0.51511	5	9.98063	0.54298	5	9.98288	0.57245	5	9.98498	0.60377	5	9.98694
2	0.51557	9	9.98067	0.54346	10	9.98291	0.57296	10	9.98501	0.60431	11	9.98697
3	0.51602	14	9.98071	0.54394	14	9.98295	0.57347	15	9.98505	0.60485	16	9.98700
4	0.51647	18	9.98075	0.54441	19	9.98299	0.57397	20	9.98508	0.60539	22	9.98703
5	0.51693	23	9.98079	0.54489	24	9.98302	0.57448	26	9.98511	0.60593	27	9.98706
6	0.51738	27	9.98083	0.54537	29	9.98306	0.57499	31	9.98515	0.60647	32	9.98709
7	0.51783	32	9.98087	0.54585	34	9.98309	0.57550	36	9.98518	0.60701	38	9.98712
8	0.51829	36	9.98090	0.54633	38	9.98313	0.57601	41	9.98521	0.60755	43	9.98715
9	0.51874	41	9.98094	0.54681	43	9.98317	0.57652	46	9.98525	0.60810	49	9.98719
10	0.51920	**46**	9.98098	0.54729	**48**	9.98320	0.57703	**51**	9.98528	0.60864	**55**	9.98722
11	0.51965	5	9.98102	0.54778	5	9.98324	0.57754	5	9.98531	0.60918	6	9.98725
12	0.52011	9	9.98106	0.54826	10	9.98327	0.57805	10	9.98535	0.60973	11	9.98728
13	0.52057	14	9.98110	0.54874	14	9.98331	0.57856	15	9.98538	0.61028	17	9.98731
14	0.52103	18	9.98113	0.54922	19	9.98334	0.57907	20	9.98541	0.61082	22	9.98734
15	0.52148	23	9.98117	0.54971	24	9.98338	0.57959	26	9.98545	0.61137	28	9.98737
16	0.52194	28	9.98121	0.55019	29	9.98342	0.58010	31	9.98548	0.61192	33	9.98740
17	0.52240	32	9.98125	0.55067	34	9.98345	0.58061	36	9.98551	0.61246	39	9.98743
18	0.52286	37	9.98129	0.55116	38	9.98349	0.58113	41	9.98555	0.61301	44	9.98746
19	0.52332	41	9.98132	0.55164	43	9.98352	0.58164	46	9.98558	0.61356	50	9.98750
20	0.52378	**46**	9.98136	0.55213	**49**	9.98356	0.58216	**52**	9.98561	0.61411	**55**	9.98753
21	0.52424	5	9.98140	0.55262	5	9.98359	0.58267	5	9.98565	0.61466	6	9.98756
22	0.52470	9	9.98144	0.55310	10	9.98363	0.58319	10	9.98568	0.61521	11	9.98759
23	0.52516	14	9.98147	0.55359	15	9.98366	0.58371	16	9.98571	0.61577	17	9.98762
24	0.52562	18	9.98151	0.55408	20	9.98370	0.58422	21	9.98574	0.61632	22	9.98765
25	0.52608	23	9.98155	0.55456	25	9.98373	0.58474	26	9.98578	0.61687	28	9.98768
26	0.52654	28	9.98159	0.55505	29	9.98377	0.58526	31	9.98581	0.61743	33	9.98771
27	0.52701	32	9.98162	0.55554	34	9.98381	0.58578	36	9.98584	0.61798	39	9.98774
28	0.52747	37	9.98166	0.55603	39	9.98384	0.58630	42	9.98588	0.61853	44	9.98777
29	0.52793	41	9.98170	0.55652	44	9.98388	0.58682	47	9.98591	0.61909	50	9.98780
30	0.52840	**47**	9.98174	0.55701	**49**	9.98391	0.58734	**52**	9.98594	0.61965	**56**	9.98783
31	0.52886	5	9.98177	0.55750	5	9.98395	0.58786	5	9.98597	0.62020	6	9.98786
32	0.52932	9	9.98181	0.55799	10	9.98398	0.58839	10	9.98601	0.62076	11	9.98789
33	0.52979	14	9.98185	0.55849	15	9.98402	0.58891	16	9.98604	0.62132	17	9.98792
34	0.53025	19	9.98189	0.55898	20	9.98405	0.58943	21	9.98607	0.62188	22	9.98795
35	0.53072	24	9.98192	0.55947	25	9.98409	0.58995	26	9.98610	0.62244	28	9.98798
36	0.53119	28	9.98196	0.55996	29	9.98412	0.59048	31	9.98614	0.62300	34	9.98801
37	0.53165	33	9.98200	0.56046	34	9.98415	0.59100	36	9.98617	0.62356	39	9.98804
38	0.53212	38	9.98204	0.56095	39	9.98419	0.59153	42	9.98620	0.62412	45	9.98807
39	0.53259	42	9.98207	0.56145	44	9.98422	0.59205	47	9.98623	0.62468	50	9.98810
40	0.53306	**47**	9.98211	0.56194	**50**	9.98426	0.59258	**53**	9.98627	0.62524	**57**	9.98813
41	0.53352	5	9.98215	0.56244	5	9.98429	0.59311	5	9.98630	0.62581	6	9.98816
42	0.53399	9	9.98218	0.56293	10	9.98433	0.59364	11	9.98633	0.62637	11	9.98819
43	0.53446	14	9.98222	0.56343	15	9.98436	0.59416	16	9.98636	0.62694	17	9.98822
44	0.53493	19	9.98226	0.56393	20	9.98440	0.59469	21	9.98640	0.62750	23	9.98825
45	0.53540	24	9.98229	0.56442	25	9.98443	0.59522	27	9.98643	0.62807	29	9.98828
46	0.53587	28	9.98233	0.56492	30	9.98447	0.59575	32	9.98646	0.62863	34	9.98831
47	0.53634	33	9.98237	0.56542	35	9.98450	0.59628	37	9.98649	0.62920	40	9.98834
48	0.53681	38	9.98240	0.56592	40	9.98453	0.59681	42	9.98652	0.62977	46	9.98837
49	0.53729	42	9.98244	0.56642	45	9.98457	0.59734	48	9.98656	0.63034	51	9.98840
50	0.53776	**47**	9.98248	0.56692	**50**	9.98460	0.59788	**54**	9.98659	0.63091	**57**	9.98843
51	0.53823	5	9.98251	0.56742	5	9.98464	0.59841	5	9.98662	0.63148	6	9.98846
52	0.53870	9	9.98255	0.56792	10	9.98467	0.59894	11	9.98665	0.63205	11	9.98849
53	0.53918	14	9.98259	0.56842	15	9.98471	0.59948	16	9.98668	0.63262	17	9.98852
54	0.53965	19	9.98262	0.56892	20	9.98474	0.60001	22	9.98671	0.63319	23	9.98855
55	0.54013	24	9.98266	0.56943	25	9.98477	0.60055	27	9.98675	0.63376	29	9.98858
56	0.54060	28	9.98270	0.56993	30	9.98481	0.60108	32	9.98678	0.63434	34	9.98861
57	0.54108	33	9.98273	0.57043	35	9.98484	0.60162	38	9.98681	0.63491	40	9.98864
58	0.54155	38	9.98277	0.57094	40	9.98488	0.60215	43	9.98684	0.63548	46	9.98867
59	0.54203	42	9.98281	0.57144	45	9.98491	0.60269	49	9.98687	0.63606	51	9.98869
60	0.54250		9.98284	0.57195		9.98494	0.60323		9.98690	0.63664		9.98872

′	77°			78°			79°			80°		
	K_2		A_1	K_2		A_1	K_2		A_1	K_2		A_1
	L. Tan.	P.P.	L. Sin.	L. Tan.	P.P.	L. Sin.	L. Tan.	P.P.	L. Sin.	L. Tan.	P.P.	L. Sin.
0	0.63664	**58**	9.98872	0.67253	**63**	9.99040	0.71135	**68**	9.99195	0.75368	**74**	9.99335
1	0.63721	6	9.98875	0.67315	6	9.99043	0.71202	7	9.99197	0.75442	7	9.99337
2	0.63779	12	9.98878	0.67377	13	9.99046	0.71270	14	9.99200	0.75516	15	9.99340
3	0.63837	17	9.98881	0.67439	19	9.99048	0.71338	20	9.99202	0.75590	22	9.99342
4	0.63895	23	9.98884	0.67502	25	9.99051	0.71405	27	9.99204	0.75665	30	9.99344
5	0.63953	29	9.98887	0.67564	32	9.99054	0.71473	34	9.99207	0.75739	37	9.99346
6	0.64011	35	9.98890	0.67627	38	9.99056	0.71541	41	9.99209	0.75814	44	9.99348
7	0.64069	41	9.98893	0.67689	44	9.99059	0.71609	48	9.99212	0.75888	52	9.99351
8	0.64127	46	9.98896	0.67752	50	9.99062	0.71677	54	9.99214	0.75963	59	9.99353
9	0.64185	52	9.98898	0.67815	57	9.99064	0.71746	61	9.99217	0.76038	67	9.99355
10	0.64243	**59**	9.98901	0.67878	**63**	9.99067	0.71814	**69**	9.99219	0.76113	**76**	9.99357
11	0.64302	6	9.98904	0.67941	6	9.99070	0.71883	7	9.99221	0.76188	8	9.99359
12	0.64360	12	9.98907	0.68004	13	9.99072	0.71951	14	9.99224	0.76263	15	9.99362
13	0.64419	18	9.98910	0.68067	19	9.99075	0.72020	21	9.99226	0.76339	23	9.99364
14	0.64477	24	9.98913	0.68130	25	9.99078	0.72089	28	9.99229	0.76414	30	9.99366
15	0.64536	30	9.98916	0.68194	32	9.99080	0.72158	35	9.99231	0.76490	38	9.99368
16	0.64595	35	9.98919	0.68257	38	9.99083	0.72227	41	9.99233	0.76565	46	9.99370
17	0.64653	41	9.98921	0.68321	44	9.99086	0.72296	48	9.99236	0.76641	53	9.99372
18	0.64712	47	9.98924	0.68384	50	9.99088	0.72365	55	9.99238	0.76717	61	9.99375
19	0.64771	53	9.98927	0.68448	57	9.99091	0.72434	62	9.99241	0.76794	68	9.99377
20	0.64830	**59**	9.98930	0.68511	**64**	9.99093	0.72504	**70**	9.99243	0.76870	**77**	9.99379
21	0.64889	6	9.98933	0.68575	6	9.99096	0.72573	7	9.99245	0.76946	8	9.99381
22	0.64949	12	9.98936	0.68639	13	9.99099	0.72643	14	9.99248	0.77023	15	9.99383
23	0.65008	18	9.98938	0.68703	19	9.99101	0.72712	21	9.99250	0.77099	23	9.99385
24	0.65067	24	9.98941	0.68767	26	9.99104	0.72782	28	9.99252	0.77176	31	9.99388
25	0.65126	30	9.98944	0.68832	32	9.99106	0.72852	35	9.99255	0.77253	39	9.99390
26	0.65186	35	9.98947	0.68896	38	9.99109	0.72922	42	9.99257	0.77330	46	9.99392
27	0.65245	41	9.98950	0.68960	45	9.99112	0.72992	49	9.99260	0.77407	54	9.99394
28	0.65305	47	9.98953	0.69025	51	9.99114	0.73063	56	9.99262	0.77484	62	9.99396
29	0.65365	53	9.98955	0.69089	58	9.99117	0.73133	63	9.99264	0.77562	69	9.99398
30	0.65424	**60**	9.98958	0.69154	**65**	9.99119	0.73203	**71**	9.99267	0.77639	**78**	9.99400
31	0.65484	6	9.98961	0.69218	7	9.99122	0.73274	7	9.99269	0.77717	8	9.99402
32	0.65544	12	9.98964	0.69283	13	9.99124	0.73345	14	9.99271	0.77795	16	9.99404
33	0.65604	18	9.98967	0.69348	20	9.99127	0.73415	21	9.99274	0.77873	23	9.99407
34	0.65664	24	9.98969	0.69413	26	9.99130	0.73486	28	9.99276	0.77951	31	9.99409
35	0.65724	30	9.98972	0.69478	33	9.99132	0.73557	36	9.99278	0.78029	39	9.99411
36	0.65785	36	9.98975	0.69543	39	9.99135	0.73628	43	9.99281	0.78107	47	9.99413
37	0.65845	42	9.98978	0.69609	46	9.99137	0.73699	50	9.99283	0.78186	55	9.99415
38	0.65905	48	9.98980	0.69674	52	9.99140	0.73771	57	9.99285	0.78264	62	9.99417
39	0.65966	54	9.98983	0.69739	59	9.99142	0.73842	64	9.99288	0.78343	70	9.99419
40	0.66026	**61**	9.98986	0.69805	**66**	9.99145	0.73914	**72**	9.99290	0.78422	**80**	9.99421
41	0.66087	6	9.98989	0.69870	7	9.99147	0.73985	7	9.99292	0.78501	8	9.99423
42	0.66147	12	9.98991	0.69936	13	9.99150	0.74057	14	9.99294	0.78580	16	9.99425
43	0.66208	18	9.98994	0.70002	20	9.99152	0.74129	22	9.99297	0.78659	24	9.99427
44	0.66269	24	9.98997	0.70068	26	9.99155	0.74201	29	9.99299	0.78739	32	9.99429
45	0.66330	31	9.99000	0.70134	33	9.99157	0.74273	36	9.99301	0.78818	40	9.99432
46	0.66391	37	9.99002	0.70200	40	9.99160	0.74345	43	9.99304	0.78898	48	9.99434
47	0.66452	43	9.99005	0.70266	46	9.99162	0.74418	50	9.99306	0.78978	56	9.99436
48	0.66513	49	9.99008	0.70332	53	9.99165	0.74490	58	9.99308	0.79058	64	9.99438
49	0.66574	55	9.99011	0.70399	59	9.99167	0.74563	65	9.99310	0.79138	72	9.99440
50	0.66635	**62**	9.99013	0.70465	**67**	9.99170	0.74635	**73**	9.99313	0.79218	**81**	9.99442
51	0.66697	6	9.99016	0.70532	7	9.99172	0.74708	7	9.99315	0.79299	8	9.99444
52	0.66758	12	9.99019	0.70598	13	9.99175	0.74781	15	9.99317	0.79379	16	9.99446
53	0.66820	19	9.99022	0.70665	20	9.99177	0.74854	22	9.99319	0.79460	24	9.99448
54	0.66881	25	9.99024	0.70732	27	9.99180	0.74927	29	9.99322	0.79541	32	9.99450
55	0.66943	31	9.99027	0.70799	34	9.99182	0.75000	37	9.99324	0.79622	41	9.99452
56	0.67005	37	9.99030	0.70866	40	9.99185	0.75074	44	9.99326	0.79703	49	9.99454
57	0.67067	43	9.99032	0.70933	47	9.99187	0.75147	51	9.99328	0.79784	57	9.99456
58	0.67128	50	9.99035	0.71000	54	9.99190	0.75221	58	9.99331	0.79866	65	9.99458
59	0.67190	56	9.99038	0.71067	60	9.99192	0.75294	66	9.99333	0.79947	73	9.99460
60	0.67253		9.99040	0.71135		9.99195	0.75368		9.99335	0.80029		9.99462

′	81°			82°			83°			84°		
	K_2		A_1	K_2		A_1	K_2		A_1	K_2		A_1
	L. Tan.	P.P.	L. Sin.	L. Tan.	P.P.	L. Sin.	L. Tan.	P.P.	L. Sin.	L. Tan.	P.P.	L. Sin.
0	0.80029	**83**	9.99462	0.85220	**93**	9.99575	0.91086	**106**	9.99675	0.97838	**123**	9.99761
1	0.80111	8	9.99464	0.85312	9	9.99577	0.91190	11	9.99677	0.97960	12	9.99763
2	0.80193	17	9.99466	0.85403	19	9.99579	0.91295	21	9.99678	0.98082	25	9.99764
3	0.80275	25	9.99468	0.85496	28	9.99581	0.91400	32	9.99680	0.98204	37	9.99765
4	0.80357	33	9.99470	0.85588	37	9.99582	0.91505	42	9.99681	0.98327	49	9.99767
5	0.80439	42	9.99472	0.85680	47	9.99584	0.91611	53	9.99683	0.98450	62	9.99768
6	0.80522	50	9.99474	0.85773	56	9.99586	0.91717	64	9.99684	0.98573	74	9.99769
7	0.80605	58	9.99476	0.85866	65	9.99588	0.91823	74	9.99686	0.98697	86	9.99771
8	0.80688	66	9.99478	0.85959	74	9.99589	0.91929	85	9.99687	0.98821	98	9.99772
9	0.80771	75	9.99480	0.86052	84	9.99591	0.92036	95	9.99689	0.98945	111	9.99773
10	0.80854	**84**	9.99482	0.86146	**95**	9.99593	0.92142	**108**	9.99690	0.99070	**127**	9.99775
11	0.80937	8	9.99484	0.86239	10	9.99595	0.92249	11	9.99692	0.99195	13	9.99776
12	0.81021	17	9.99486	0.86333	19	9.99596	0.92357	22	9.99693	0.99321	25	9.99777
13	0.81104	25	9.99488	0.86427	29	9.99598	0.92464	32	9.99695	0.99447	38	9.99778
14	0.81188	34	9.99490	0.86522	38	9.99600	0.92572	43	9.99696	0.99573	51	9.99780
15	0.81272	42	9.99492	0.86616	48	9.99601	0.92680	54	9.99698	0.99699	64	9.99781
16	0.81356	50	9.99494	0.86711	57	9.99603	0.92789	65	9.99699	0.99826	76	9.99782
17	0.81440	59	9.99495	0.86806	67	9.99605	0.92897	76	9.99701	0.99954	89	9.99783
18	0.81525	67	9.99497	0.86901	76	9.99607	0.93006	86	9.99702	1.00081	102	9.99785
19	0.81609	76	9.99499	0.86996	86	9.99608	0.93115	97	9.99704	1.00209	114	9.99786
20	0.81694	**86**	9.99501	0.87091	**97**	9.99610	0.93225	**111**	9.99705	1.00338	**130**	9.99787
21	0.81779	9	9.99503	0.87187	10	9.99612	0.93334	11	9.99707	1.00466	13	9.99788
22	0.81864	17	9.99505	0.87283	19	9.99613	0.93444	22	9.99708	1.00595	26	9.99790
23	0.81949	26	9.99507	0.87379	29	9.99615	0.93555	33	9.99710	1.00725	39	9.99791
24	0.82035	34	9.99509	0.87475	39	9.99617	0.93665	44	9.99711	1.00855	52	9.99792
25	0.82120	43	9.99511	0.87572	49	9.99618	0.93776	56	9.99713	1.00985	65	9.99793
26	0.82206	52	9.99513	0.87668	58	9.99620	0.93887	67	9.99714	1.01116	78	9.99795
27	0.82292	60	9.99515	0.87765	68	9.99622	0.93998	78	9.99716	1.01247	91	9.99796
28	0.82378	69	9.99517	0.87862	78	9.99624	0.94110	89	9.99717	1.01378	104	9.99797
29	0.82464	77	9.99518	0.87960	87	9.99625	0.94222	100	9.99718	1.01510	117	9.99798
30	0.82550	**87**	9.99520	0.88057	**99**	9.99627	0.94334	**114**	9.99720	1.01642	**134**	9.99800
31	0.82637	9	9.99522	0.88155	10	9.99629	0.94447	11	9.99721	1.01775	13	9.99801
32	0.82723	17	9.99524	0.88253	20	9.99630	0.94559	23	9.99723	1.01908	27	9.99802
33	0.82810	26	9.99526	0.88351	30	9.99632	0.94672	34	9.99724	1.02041	40	9.99803
34	0.82897	35	9.99528	0.88449	40	9.99633	0.94786	46	9.99726	1.02175	54	9.99804
35	0.82984	44	9.99530	0.88548	50	9.99635	0.94899	57	9.99727	1.02309	67	9.99806
36	0.83072	52	9.99532	0.88647	59	9.99637	0.95013	68	9.99728	1.02444	80	9.99807
37	0.83159	61	9.99533	0.88746	69	9.99638	0.95127	80	9.99730	1.02579	94	9.99808
38	0.83247	70	9.99535	0.88845	79	9.99640	0.95242	91	9.99731	1.02715	107	9.99809
39	0.83335	78	9.99537	0.88944	89	9.99642	0.95357	103	9.99733	1.02850	121	9.99810
40	0.83423	**89**	9.99539	0.89044	**101**	9.99643	0.95472	**117**	9.99734	1.02987	**139**	9.99812
41	0.83511	9	9.99541	0.89144	10	9.99645	0.95587	12	9.99736	1.03123	14	9.99813
42	0.83599	18	9.99543	0.89244	20	9.99647	0.95703	23	9.99737	1.03261	28	9.99814
43	0.83688	27	9.99545	0.89344	30	9.99648	0.95819	35	9.99738	1.03398	42	9.99815
44	0.83776	36	9.99546	0.89445	40	9.99650	0.95935	47	9.99740	1.03536	56	9.99816
45	0.83865	45	9.99548	0.89546	51	9.99651	0.96052	59	9.99741	1.03675	70	9.99817
46	0.83954	53	9.99550	0.89647	61	9.99653	0.96168	70	9.99742	1.03813	83	9.99819
47	0.84044	62	9.99552	0.89748	71	9.99655	0.96286	82	9.99744	1.03953	97	9.99820
48	0.84133	71	9.99554	0.89850	81	9.99656	0.96403	94	9.99745	1.04092	111	9.99821
49	0.84223	80	9.99556	0.89951	91	9.99658	0.96521	105	9.99747	1.04233	125	9.99822
50	0.84312	**91**	9.99557	0.90053	**103**	9.99659	0.96639	**120**	9.99748	1.04373	**143**	9.99823
51	0.84402	9	9.99559	0.90155	10	9.99661	0.96758	12	9.99749	1.04514	14	9.99824
52	0.84492	18	9.99561	0.90258	21	9.99663	0.96876	24	9.99751	1.04656	29	9.99825
53	0.84583	27	9.99563	0.90360	31	9.99664	0.96995	36	9.99752	1.04798	43	9.99827
54	0.84673	36	9.99565	0.90463	41	9.99666	0.97115	48	9.99753	1.04940	57	9.99828
55	0.84764	46	9.99566	0.90566	52	9.99667	0.97234	60	9.99755	1.05083	72	9.99829
56	0.84855	55	9.99568	0.90670	62	9.99669	0.97355	72	9.99756	1.05227	86	9.99830
57	0.84946	64	9.99570	0.90773	72	9.99670	0.97475	84	9.99757	1.05370	100	9.99831
58	0.85037	73	9.99572	0.90877	82	9.99672	0.97596	96	9.99759	1.05515	114	9.99832
59	0.85128	82	9.99574	0.90981	93	9.99674	0.97717	108	9.99760	1.05660	129	9.99833
60	0.85220		9.99575	0.91086		9.99675	0.97838		9.99761	1.05805		9.99834

′	85°			86°			87°			88°			89°		
	K_2		A_1	K_2		A_1	K_2		A_1	K_2		A_1	K_2		A_1
	L. Tan.	Diff.	L.Sin. 9.99	L. Tan.	Diff.	L.Sin. 9.99	L. Tan.	Diff.	L.Sin. 9.99	L. Tan.	Diff.	L.Sin. 9.99	L. Tan.	Diff.	L.Sin. 9.99
0	1.05805	146	834	1.15536	182	894	1.28060	243	940	1.45692	363	974	1.75808	730	993
1	1.05951	146	836	1.15718	182	895	1.28303	244	941	1.46055	367	974	1.76538	742	994
2	1.06097	147	837	1.15900	184	896	1.28547	245	942	1.46422	370	974	1.77280	756	994
3	1.06244	147	838	1.16084	184	897	1.28792	246	942	1.46792	373	975	1.78036	769	994
4	1.06391	147	839	1.16268	185	898	1.29038	248	943	1.47165	376	975	1.78805	782	994
5	1.06538	149	840	1.16453	186	898	1.29286	249	944	1.47541	380	976	1.79587	797	994
6	1.06687	148	841	1.16639	186	899	1.29535	251	944	1.47921	383	976	1.80384	812	995
7	1.06835	149	842	1.16825	188	900	1.29786	252	945	1.48304	386	977	1.81196	828	995
8	1.06984	150	843	1.17013	188	901	1.30038	254	946	1.48690	390	977	1.82024	843	995
9	1.07134	150	844	1.17201	189	902	1.30292	255	946	1.49080	393	977	1.82867	860	995
10	1.07284	151	845	1.17390	190	903	1.30547	257	947	1.49473	397	978	1.83727	878	995
11	1.07435	151	846	1.17580	190	904	1.30804	258	948	1.49870	401	978	1.84605	895	996
12	1.07586	152	847	1.17770	192	904	1.31062	260	948	1.50271	404	979	1.85500	915	996
13	1.07738	152	848	1.17962	192	905	1.31322	261	949	1.50675	408	979	1.86415	934	996
14	1.07890	153	850	1.18154	193	906	1.31583	263	949	1.51083	412	979	1.87349	955	996
15	1.08043	154	851	1.18347	194	907	1.31846	264	950	1.51495	416	980	1.88304	976	996
16	1.08197	153	852	1.18541	195	908	1.32110	266	951	1.51911	420	980	1.89280	998	996
17	1.08350	155	853	1.18736	196	909	1.32376	268	951	1.52331	424	981	1.90278	1022	997
18	1.08505	155	854	1.18932	196	909	1.32644	269	952	1.52755	428	981	1.91300	1047	997
19	1.08660	155	855	1.19128	198	910	1.32913	271	952	1.53183	432	981	1.92347	1072	997
20	1.08815	156	856	1.19326	198	911	1.33184	273	953	1.53615	437	982	1.93419	1100	997
21	1.08971	157	857	1.19524	199	912	1.33457	274	954	1.54052	441	982	1.94519	1128	997
22	1.09128	157	858	1.19723	201	913	1.33731	276	954	1.54493	446	982	1.95647	1159	997
23	1.09285	158	859	1.19924	201	913	1.34007	278	955	1.54939	450	983	1.96806	1190	997
24	1.09443	158	860	1.20125	202	914	1.34285	280	955	1.55389	455	983	1.97996	1223	998
25	1.09601	159	861	1.20327	203	915	1.34565	281	956	1.55844	460	983	1.99219	1259	998
26	1.09760	160	862	1.20530	204	916	1.34846	284	956	1.56304	464	984	2.00478	1297	998
27	1.09920	160	863	1.20734	205	917	1.35130	285	957	1.56768	470	984	2.01775	1336	998
28	1.10080	160	864	1.20939	206	917	1.35415	287	958	1.57238	475	984	2.03111	1379	998
29	1.10240	162	865	1.21145	206	918	1.35702	289	958	1.57713	480	985	2.04490	1424	998
30	1.10402	161	866	1.21351	208	919	1.35991	291	959	1.58193	486	985	2.05914	1473	998
31	1.10563	163	867	1.21559	209	920	1.36282	292	959	1.58679	491	985	2.07387	1524	998
32	1.10726	163	868	1.21768	210	921	1.36574	295	960	1.59170	496	986	2.08911	1579	999
33	1.10889	163	869	1.21978	211	922	1.36869	297	960	1.59666	502	986	2.10490	1639	999
34	1.11052	165	870	1.22189	211	922	1.37166	299	961	1.60168	509	986	2.12129	1704	999
35	1.11217	165	871	1.22400	213	923	1.37465	301	961	1.60677	514	987	2.13833	1773	999
36	1.11382	165	872	1.22613	214	923	1.37766	303	962	1.61191	520	987	2.15606	1848	999
37	1.11547	166	873	1.22827	215	924	1.38069	305	962	1.61711	527	988	2.17454	1931	999
38	1.11713	167	874	1.23042	216	925	1.38374	307	963	1.62238	533	988	2.19385	2020	999
39	1.11880	167	875	1.23258	217	926	1.38681	310	963	1.62771	540	988	2.21405	2119	999
40	1.12047	168	876	1.23475	219	926	1.38991	311	964	1.63311	546	988	2.23524	2228	999
41	1.12215	169	877	1.23694	219	927	1.39302	314	964	1.63857	553	989	2.25752	2348	999
42	1.12384	169	878	1.23913	220	928	1.39616	316	965	1.64410	561	989	2.28100	2482	999
43	1.12553	170	879	1.24133	222	929	1.39932	319	966	1.64971	568	989	2.30582	2633	999
44	1.12723	171	879	1.24355	222	929	1.40251	321	966	1.65539	575	989	2.33215	2803	⋯⋯
45	1.12894	171	880	1.24577	224	930	1.40572	323	967	1.66114	584	990	2.36018	2996	⋯⋯
46	1.13065	172	881	1.24801	225	931	1.40895	326	967	1.66698	591	990	2.39014	3219	⋯⋯
47	1.13237	172	882	1.25026	226	932	1.41221	328	967	1.67289	599	990	2.42233	3476	⋯⋯
48	1.13409	174	883	1.25252	227	932	1.41549	330	968	1.67888	607	990	2.45709	3779	⋯⋯
49	1.13583	174	884	1.25479	229	933	1.41879	333	968	1.68495	617	991	2.49488	4139	⋯⋯
50	1.13757	174	885	1.25708	229	934	1.42212	336	969	1.69112	625	991	2.53627	4576	⋯⋯
51	1.13931	176	886	1.25937	231	934	1.42548	338	969	1.69737	634	991	2.58203	5115	⋯⋯
52	1.14107	176	887	1.26168	232	935	1.42886	341	970	1.70371	643	992	2.63318	5800	⋯⋯
53	1.14283	177	888	1.26400	234	936	1.43227	344	970	1.71014	654	992	2.69118	6694	⋯⋯
54	1.14460	177	889	1.26634	234	936	1.43571	346	971	1.71668	663	992	2.75812	7918	⋯⋯
55	1.14637	178	890	1.26868	236	937	1.43917	349	971	1.72331	673	992	2.83730	9691	⋯⋯
56	1.14815	179	891	1.27104	237	938	1.44266	352	972	1.73004	684	993	2.93421	12494	⋯⋯
57	1.14994	180	891	1.27341	239	938	1.44618	355	972	1.73688	696	993	3.05915	17609	⋯⋯
58	1.15174	180	892	1.27580	239	939	1.44973	358	973	1.74384	706	993	3.23524	30103	⋯⋯
59	1.15354	182	893	1.27819	241	940	1.45331	361	973	1.75090	718	993	3.53627		⋯⋯
60	1.15536		894	1.28060		940	1.45692		974	1.75808		993	+∞		⋯⋯ *

* $d=90°$ ナルトキ $\begin{cases} a = l \\ Z = 0,\ 180° \end{cases}$

高度及方位角計算表 K 表

Kノ符號 lトdトガ	h …… 0° — 90°	90° — 180°	180° — 270°	270° — 360°
同名ナルトキ	+	～	～	+
異名ナルトキ	～	+	+	～

′	0° 0′.0	0′.1	0′.2	0′.3	0′.4	0′.5	A_2	Z_2	′
	K_3	K_3	K_3	K_3	K_3	K_3			
	L. Cot.	L. Cot.	L. Cot.	L. Cot.	L. Cot.	L. Cot.	L. Sec.	L. Sin.	
0	+∞	4.53627	4.23524	4.05915	3.93421	3.83730	0.00000	—∞	0
1	3.53627	3.49488	3.45709	3.42233	3.39015	3.36018	0.00000	6.464	1
2	3.23524	3.21405	3.19385	3.17455	3.15606	3.13833	0.00000	6.765	2
3	3.05915	3.04491	3.03112	3.01776	3.00479	2.99221	0.00000	6.941	3
4	2.93421	2.92349	2.91302	2.90281	2.89282	2.88306	0.00000	7.066	4
5	2.83730	2.82870	2.82027	2.81200	2.80388	2.79591	0.00000	7.163	5
6	2.75812	2.75094	2.74388	2.73693	2.73009	2.72336	0.00000	7.242	6
7	2.69118	2.68501	2.67894	2.67295	2.66704	2.66121	0.00000	7.309	7
8	2.63318	2.62779	2.62246	2.61719	2.61199	2.60685	0.00000	7.367	8
9	2.58203	2.57723	2.57249	2.56779	2.56314	2.55855	0.00000	7.418	9
10	2.53627	2.53195	2.52767	2.52344	2.51924	2.51508	0.00000	7.464	10
11	2.49488	2.49095	2.48705	2.48319	2.47937	2.47557	0.00000	7.505	11
12	2.45709	2.45349	2.44991	2.44637	2.44285	2.43936	0.00000	7.543	12
13	2.42233	2.41900	2.41570	2.41242	2.40917	2.40594	0.00000	7.578	13
14	2.39014	2.38705	2.38398	2.38094	2.37791	2.37490	0.00000	7.610	14
15	2.36018	2.35729	2.35443	2.35158	2.34875	2.34594	0.00000	7.640	15
16	2.33215	2.32944	2.32676	2.32408	2.32143	2.31879	0.00000	7.668	16
17	2.30582	2.30327	2.30074	2.29822	2.29572	2.29323	0.00001	7.694	17
18	2.28100	2.27859	2.27620	2.27382	2.27145	2.26910	0.00001	7.719	18
19	2.25752	2.25524	2.25297	2.25071	2.24847	2.24623	0.00001	7.742	19
20	2.23524	2.23307	2.23092	2.22877	2.22664	2.22451	0.00001	7.765	20
21	2.21405	2.21199	2.20993	2.20789	2.20585	2.20383	0.00001	7.786	21
22	2.19385	2.19188	2.18991	2.18796	2.18602	2.18409	0.00001	7.806	22
23	2.17454	2.17266	2.17078	2.16891	2.16705	2.16520	0.00001	7.825	23
24	2.15606	2.15425	2.15245	2.15066	2.14888	2.14710	0.00001	7.844	24
25	2.13833	2.13659	2.13487	2.13315	2.13143	2.12973	0.00001	7.862	25
26	2.12129	2.11963	2.11796	2.11631	2.11466	2.11302	0.00001	7.879	26
27	2.10490	2.10330	2.10170	2.10010	2.09851	2.09693	0.00001	7.895	27
28	2.08911	2.08756	2.08602	2.08448	2.08295	2.08142	0.00001	7.911	28
29	2.07387	2.07237	2.07088	2.06940	2.06792	2.06644	0.00002	7.926	29
30	2.05914	2.05770	2.05626	2.05482	2.05339	2.05196	0.00002	7.941	30
31	2.04490	2.04350	2.04211	2.04072	2.03933	2.03795	0.00002	7.955	31
32	2.03111	2.02976	2.02841	2.02706	2.02572	2.02438	0.00002	7.969	32
33	2.01775	2.01643	2.01512	2.01382	2.01251	2.01122	0.00002	7.982	33
34	2.00478	2.00351	2.00223	2.00097	1.99970	1.99844	0.00002	7.995	34
35	1.99219	1.99095	1.98972	1.98848	1.98726	1.98603	0.00002	8.008	35
36	1.97996	1.97875	1.97755	1.97635	1.97516	1.97396	0.00002	8.020	36
37	1.96806	1.96688	1.96571	1.96455	1.96339	1.96223	0.00003	8.032	37
38	1.95647	1.95533	1.95419	1.95306	1.95192	1.95080	0.00003	8.044	38
39	1.94519	1.94408	1.94297	1.94186	1.94076	1.93966	0.00003	8.055	39
40	1.93419	1.93311	1.93203	1.93095	1.92987	1.92880	0.00003	8.066	40
41	1.92347	1.92241	1.92136	1.92030	1.91925	1.91820	0.00003	8.077	41
42	1.91300	1.91197	1.91094	1.90991	1.90889	1.90786	0.00003	8.087	42
43	1.90278	1.90177	1.90077	1.89976	1.89876	1.89776	0.00003	8.097	43
44	1.89280	1.89181	1.89083	1.88985	1.88887	1.88789	0.00004	8.107	44
45	1.88304	1.88207	1.88111	1.88015	1.87919	1.87824	0.00004	8.117	45
46	1.87349	1.87255	1.87161	1.87067	1.86973	1.86879	0.00004	8.126	46
47	1.86415	1.86323	1.86230	1.86139	1.86047	1.85955	0.00004	8.136	47
48	1.85500	1.85410	1.85320	1.85230	1.85140	1.85050	0.00004	8.145	48
49	1.84605	1.84516	1.84428	1.84340	1.84252	1.84164	0.00004	8.154	49
50	1.83727	1.83641	1.83554	1.83467	1.83381	1.83295	0.00005	8.163	50
51	1.82867	1.82782	1.82697	1.82612	1.82528	1.82443	0.00005	8.171	51
52	1.82024	1.81940	1.81857	1.81774	1.81691	1.81608	0.00005	8.180	52
53	1.81196	1.81114	1.81033	1.80951	1.80870	1.80789	0.00005	8.188	53
54	1.80384	1.80304	1.80224	1.80144	1.80064	1.79984	0.00005	8.196	54
55	1.79587	1.79509	1.79430	1.79351	1.79273	1.79194	0.00006	8.204	55
56	1.78805	1.78727	1.78650	1.78573	1.78496	1.78419	0.00006	8.212	56
57	1.78036	1.77960	1.77884	1.77808	1.77732	1.77657	0.00006	8.220	57
58	1.77280	1.77206	1.77131	1.77056	1.76982	1.76908	0.00006	8.227	58
59	1.76538	1.76464	1.76391	1.76318	1.76244	1.76171	0.00006	8.235	59

$K_1 + K_2 = K_3 \longrightarrow K \longrightarrow A_2,\ Z_2$

高度及方位角計算表 K 表

Kノ符號 lトdトガ	h …… 0° — 90°	90° — 180°	180° — 270°	270° — 360°
同名ナルトキ	+	～	～	+
異名ナルトキ	～	+	+	～

′	0° 0′.5	0′.6	0′.7	0′.8	0′.9	1′.0	A_2	Z_2	′
	K_3	K_3	K_3	K_3	K_3	K_3			
	L. Cot.	L. Cot.	L. Cot.	L. Cot.	L. Cot.	L. Cot.	L. Sec.	L. Sin.	
0	3.83730	3.75812	3.69118	3.63318	3.58203	3.53627	0.00000	—∞	0
1	3.36018	3.33215	3.30582	3.28100	3.25752	3.23524	0.00000	6.464	1
2	3.13833	3.12130	3.10491	3.08912	3.07388	3.05915	0.00000	6.765	2
3	2.99221	2.97997	2.96807	2.95649	2.94521	2.93421	0.00000	6.941	3
4	2.88306	2.87352	2.86418	2.85503	2.84608	2.83730	0.00000	7.066	4
5	2.79591	2.78809	2.78040	2.77285	2.76542	2.75812	0.00000	7.163	5
6	2.72336	2.71673	2.71020	2.70376	2.69742	2.69118	0.00000	7.242	6
7	2.66121	2.65546	2.64978	2.64418	2.63865	2.63318	0.00000	7.309	7
8	2.60685	2.60177	2.59675	2.59179	2.58688	2.58203	0.00000	7.367	8
9	2.55855	2.55400	2.54950	2.54505	2.54064	2.53627	0.00000	7.418	9
10	2.51508	2.51097	2.50689	2.50285	2.49885	2.49488	0.00000	7.464	10
11	2.47557	2.47181	2.46809	2.46439	2.46073	2.45709	0.00000	7.505	11
12	2.43936	2.43590	2.43247	2.42906	2.42568	2.42233	0.00000	7.543	12
13	2.40594	2.40273	2.39955	2.39639	2.39326	2.39014	0.00000	7.578	13
14	2.37490	2.37192	2.36895	2.36601	2.36308	2.36018	0.00000	7.610	14
15	2.34594	2.34315	2.34037	2.33761	2.33487	2.33215	0.00000	7.640	15
16	2.31879	2.31616	2.31355	2.31096	2.30838	2.30582	0.00000	7.668	16
17	2.29323	2.29076	2.28830	2.28585	2.28342	2.28100	0.00001	7.694	17
18	2.26910	2.26676	2.26443	2.26211	2.25981	2.25752	0.00001	7.719	18
19	2.24623	2.24401	2.24180	2.23960	2.23742	2.23524	0.00001	7.742	19
20	2.22451	2.22240	2.22030	2.21821	2.21612	2.21405	0.00001	7.765	20
21	2.20383	2.20181	2.19981	2.19781	2.19582	2.19385	0.00001	7.786	21
22	2.18409	2.18216	2.18024	2.17833	2.17643	2.17454	0.00001	7.806	22
23	2.16520	2.16336	2.16152	2.15969	2.15787	2.15606	0.00001	7.825	23
24	2.14710	2.14533	2.14357	2.14181	2.14007	2.13833	0.00001	7.844	24
25	2.12973	2.12803	2.12633	2.12465	2.12297	2.12129	0.00001	7.862	25
26	2.11302	2.11138	2.10975	2.10813	2.10651	2.10490	0.00001	7.879	26
27	2.09693	2.09536	2.09378	2.09222	2.09066	2.08911	0.00001	7.895	27
28	2.08142	2.07990	2.07838	2.07687	2.07537	2.07387	0.00001	7.911	28
29	2.06644	2.06497	2.06351	2.06205	2.06059	2.05914	0.00002	7.926	29
30	2.05196	2.05054	2.04912	2.04771	2.04630	2.04490	0.00002	7.941	30
31	2.03795	2.03657	2.03520	2.03383	2.03247	2.03111	0.00002	7.955	31
32	2.02438	2.02304	2.02171	2.02039	2.01906	2.01775	0.00002	7.969	32
33	2.01122	2.00992	2.00863	2.00734	2.00606	2.00478	0.00002	7.982	33
34	1.99844	1.99718	1.99593	1.99468	1.99343	1.99219	0.00002	7.995	34
35	1.98603	1.98481	1.98359	1.98238	1.98116	1.97996	0.00002	8.008	35
36	1.97396	1.97278	1.97159	1.97041	1.96923	1.96806	0.00002	8.020	36
37	1.96223	1.96107	1.95992	1.95876	1.95762	1.95647	0.00003	8.032	37
38	1.95080	1.94967	1.94854	1.94742	1.94631	1.94519	0.00003	8.044	38
39	1.93966	1.93856	1.93746	1.93637	1.93528	1.93419	0.00003	8.055	39
40	1.92880	1.92773	1.92666	1.92559	1.92453	1.92347	0.00003	8.066	40
41	1.91820	1.91716	1.91612	1.91508	1.91404	1.91300	0.00003	8.077	41
42	1.90786	1.90684	1.90582	1.90481	1.90379	1.90278	0.00003	8.087	42
43	1.89776	1.89676	1.89577	1.89478	1.89379	1.89280	0.00003	8.097	43
44	1.88789	1.88691	1.88594	1.88497	1.88400	1.88304	0.00004	8.107	44
45	1.87824	1.87728	1.87633	1.87538	1.87444	1.87349	0.00004	8.117	45
46	1.86879	1.86786	1.86693	1.86600	1.86507	1.86415	0.00004	8.126	46
47	1.85955	1.85864	1.85773	1.85682	1.85591	1.85500	0.00004	8.136	47
48	1.85050	1.84961	1.84872	1.84782	1.84694	1.84605	0.00004	8.145	48
49	1.84164	1.84076	1.83989	1.83901	1.83814	1.83727	0.00004	8.154	49
50	1.83295	1.83209	1.83123	1.83038	1.82952	1.82867	0.00005	8.163	50
51	1.82443	1.82359	1.82275	1.82191	1.82107	1.82024	0.00005	8.171	51
52	1.81608	1.81525	1.81443	1.81361	1.81278	1.81196	0.00005	8.180	52
53	1.80789	1.80707	1.80626	1.80546	1.80465	1.80384	0.00005	8.188	53
54	1.79984	1.79904	1.79825	1.79746	1.79666	1.79587	0.00005	8.196	54
55	1.79194	1.79116	1.79038	1.78960	1.78882	1.78805	0.00006	8.204	55
56	1.78419	1.78342	1.78265	1.78189	1.78112	1.78036	0.00006	8.212	56
57	1.77657	1.77581	1.77506	1.77431	1.77355	1.77280	0.00006	8.220	57
58	1.76908	1.76833	1.76759	1.76685	1.76612	1.76538	0.00006	8.227	58
59	1.76171	1.76098	1.76026	1.75953	1.75880	1.75808	0.00006	8.235	59

$K_1 + K_2 = K_3 \longrightarrow K \longrightarrow A_2,\ Z_2$

第 6 表 III　高度及方位角計算表　**K 表**

KJ符號 ltdtガ　h …… 0°−90°−180°−270°−360°
同名ナルトキ　+ ～ ～ +
異名ナルトキ　～ + + ～

1°

′	K_3		A_2	Z_2	′	K_3		A_2	Z_2
	L. Cot.	P.P.	L. Sec.	L. Sin.		L. Cot.	P.P.	L. Sec.	L. Sin.
0	1.75808	−348	0.00007	8.242	30	1.58193	−235	0.00015	8.418
.5	1.75447		0.00007	8.245	.5	1.57952		0.00015	8.420
1	1.75090	− 70	0.00007	8.249	31	1.57713	− 47	0.00015	8.423
.5	1.74735		0.00007	8.253	.5	1.57475		0.00015	8.425
2	1.74384	−139	0.00007	8.256	32	1.57238	− 94	0.00016	8.427
.5	1.74035		0.00007	8.260	.5	1.57003		0.00016	8.430
3	1.73688	−209	0.00007	8.263	33	1.56768	−141	0.00016	8.432
.5	1.73345		0.00007	8.266	.5	1.56536		0.00016	8.434
4	1.73004	−278	0.00008	8.270	34	1.56304	−188	0.00016	8.437
.5	1.72666		0.00008	8.273	.5	1.56073		0.00016	8.439
5	1.72331	−322	0.00008	8.277	35	1.55844	−223	0.00017	8.441
.5	1.71998		0.00008	8.280	.5	1.55616		0.00017	8.444
6	1.71668	− 64	0.00008	8.283	36	1.55389	− 45	0.00017	8.446
.5	1.71340		0.00008	8.287	.5	1.55163		0.00017	8.448
7	1.71014	−129	0.00008	8.290	37	1.54939	− 89	0.00017	8.450
.5	1.70691		0.00008	8.293	.5	1.54715		0.00017	8.453
8	1.70371	−193	0.00008	8.296	38	1.54493	−134	0.00018	8.455
.5	1.70053		0.00009	8.299	.5	1.54272		0.00018	8.457
9	1.69737	−258	0.00009	8.303	39	1.54052	−178	0.00018	8.459
.5	1.69423		0.00009	8.306	.5	1.53833		0.00018	8.461
10	1.69112	−300	0.00009	8.309	40	1.53615	−212	0.00018	8.464
.5	1.68802		0.00009	8.312	.5	1.53398		0.00019	8.466
11	1.68495	− 60	0.00009	8.315	41	1.53183	− 42	0.00019	8.468
.5	1.68191		0.00009	8.318	.5	1.52968		0.00019	8.470
12	1.67888	−120	0.00010	8.321	42	1.52755	− 85	0.00019	8.472
.5	1.67587		0.00010	8.324	.5	1.52542		0.00019	8.474
13	1.67289	−180	0.00010	8.327	43	1.52331	−127	0.00019	8.476
.5	1.66992		0.00010	8.330	.5	1.52120		0.00020	8.479
14	1.66698	−240	0.00010	8.333	44	1.51911	−170	0.00020	8.481
.5	1.66405		0.00010	8.336	.5	1.51702		0.00020	8.483
15	1.66114	−280	0.00010	8.339	45	1.51495	−202	0.00020	8.485
.5	1.65826		0.00010	8.342	.5	1.51289		0.00020	8.487
16	1.65539	− 56	0.00011	8.345	46	1.51083	− 40	0.00021	8.489
.5	1.65254		0.00011	8.347	.5	1.50879		0.00021	8.491
17	1.64971	−112	0.00011	8.350	47	1.50675	− 81	0.00021	8.493
.5	1.64690		0.00011	8.353	.5	1.50472		0.00021	8.495
18	1.64410	−168	0.00011	8.356	48	1.50271	−121	0.00021	8.497
.5	1.64133		0.00011	8.359	.5	1.50070		0.00022	8.499
19	1.63857	−224	0.00011	8.361	49	1.49870	−162	0.00022	8.501
.5	1.63583		0.00012	8.364	.5	1.49671		0.00022	8.503
20	1.63311	−263	0.00012	8.367	50	1.49473	−193	0.00022	8.505
.5	1.63040		0.00012	8.369	.5	1.49276		0.00022	8.507
21	1.62771	− 53	0.00012	8.372	51	1.49080	− 39	0.00023	8.509
.5	1.62503		0.00012	8.375	.5	1.48885		0.00023	8.511
22	1.62238	−105	0.00012	8.377	52	1.48690	− 77	0.00023	8.513
.5	1.61974		0.00013	8.380	.5	1.48497		0.00023	8.515
23	1.61711	−158	0.00013	8.383	53	1.48304	−116	0.00023	8.517
.5	1.61450		0.00013	8.385	.5	1.48112		0.00024	8.519
24	1.61191	−210	0.00013	8.388	54	1.47921	−154	0.00024	8.521
.5	1.60933		0.00013	8.391	.5	1.47731		0.00024	8.522
25	1.60677	−248	0.00013	8.393	55	1.47541	−185	0.00024	8.524
.5	1.60422		0.00013	8.396	.5	1.47353		0.00025	8.526
26	1.60168	− 50	0.00014	8.398	56	1.47165	− 37	0.00025	8.528
.5	1.59917		0.00014	8.401	.5	1.46978		0.00025	8.530
27	1.59666	− 99	0.00014	8.403	57	1.46792	− 74	0.00025	8.532
.5	1.59417		0.00014	8.406	.5	1.46607		0.00025	8.534
28	1.59170	−149	0.00014	8.408	58	1.46422	−111	0.00026	8.536
.5	1.58923		0.00014	8.411	.5	1.46238		0.00026	8.537
29	1.58679	−198	0.00015	8.413	59	1.46055	−148	0.00026	8.539
.5	1.58435		0.00015	8.416	.5	1.45873		0.00026	8.541
30	1.58193		0.00015	8.418	60	1.45692		0.00026	8.543

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

第 6 表 III　高度及方位角計算表　**K 表**

KJ符號 ltdtガ　h …… 0°−90°−180°−270°−360°
同名ナルトキ　+ ～ ～ +
異名ナルトキ　～ + + ～

′	2°				3°				4°			
	K_3		A_2	Z_2	K_3		A_2	Z_2	K_3		A_2	Z_2
	L. Cot.	P.P.	L. Sec.	L. Sin.	L. Cot.	P.P.	L. Sec.	L. Sin.	L. Cot.	P.P.	L. Sec.	L. Sin.
0	1.45692	−348	0.00026	8.543	1.28060	−235	0.00060	8.719	1.15536	−178	0.00106	8.844
1	1.45331	− 35	0.00027	8.546	1.27819	− 24	0.00060	8.721	1.15354	− 18	0.00107	8.845
2	1.44973	− 70	0.00027	8.550	1.27580	− 47	0.00061	8.724	1.15174	− 36	0.00108	8.847
3	1.44618	−104	0.00028	8.554	1.27341	− 71	0.00062	8.726	1.14994	− 53	0.00109	8.849
4	1.44266	−139	0.00028	8.557	1.27104	− 94	0.00062	8.728	1.14815	− 71	0.00109	8.851
5	1.43917	−174	0.00029	8.561	1.26868	−118	0.00063	8.731	1.14637	− 89	0.00110	8.853
6	1.43571	−209	0.00029	8.564	1.26634	−141	0.00064	8.733	1.14460	−107	0.00111	8.854
7	1.43227	−244	0.00030	8.567	1.26400	−165	0.00064	8.735	1.14283	−125	0.00112	8.856
8	1.42886	−278	0.00030	8.571	1.26168	−188	0.00065	8.738	1.14107	−142	0.00113	8.858
9	1.42548	−313	0.00031	8.574	1.25937	−212	0.00066	8.740	1.13931	−160	0.00114	8.860
10	1.42212	−322	0.00031	8.578	1.25708	−223	0.00066	8.742	1.13757	−171	0.00115	8.861
11	1.41879	− 32	0.00032	8.581	1.25479	− 22	0.00067	8.745	1.13583	− 17	0.00116	8.863
12	1.41549	− 64	0.00032	8.584	1.25252	− 45	0.00068	8.747	1.13409	− 34	0.00117	8.865
13	1.41221	− 97	0.00033	8.587	1.25026	− 67	0.00068	8.749	1.13237	− 51	0.00118	8.866
14	1.40895	−129	0.00033	8.591	1.24801	− 89	0.00069	8.751	1.13065	− 68	0.00119	8.868
15	1.40572	−161	0.00033	8.594	1.24577	−112	0.00070	8.754	1.12894	− 86	0.00120	8.870
16	1.40251	−193	0.00034	8.597	1.24355	−134	0.00071	8.756	1.12723	−103	0.00121	8.872
17	1.39932	−225	0.00034	8.600	1.24133	−156	0.00071	8.758	1.12553	−120	0.00121	8.873
18	1.39616	−258	0.00035	8.603	1.23913	−178	0.00072	8.760	1.12384	−137	0.00122	8.875
19	1.39302	−290	0.00036	8.607	1.23694	−201	0.00073	8.762	1.12215	−154	0.00123	8.877
20	1.38991	−300	0.00036	8.610	1.23475	−212	0.00074	8.765	1.12047	−165	0.00124	8.878
21	1.38681	− 30	0.00037	8.613	1.23258	− 21	0.00074	8.767	1.11880	− 17	0.00125	8.880
22	1.38374	− 60	0.00037	8.616	1.23042	− 42	0.00075	8.769	1.11713	− 33	0.00126	8.882
23	1.38069	− 90	0.00038	8.619	1.22827	− 64	0.00076	8.771	1.11547	− 50	0.00127	8.883
24	1.37766	−120	0.00038	8.622	1.22613	− 85	0.00077	8.773	1.11382	− 66	0.00128	8.885
25	1.37465	−150	0.00039	8.625	1.22400	−106	0.00077	8.775	1.11217	− 83	0.00129	8.887
26	1.37166	−180	0.00039	8.628	1.22189	−127	0.00078	8.777	1.11052	− 99	0.00130	8.888
27	1.36869	−210	0.00040	8.631	1.21978	−148	0.00079	8.779	1.10889	−116	0.00131	8.890
28	1.36574	−240	0.00040	8.634	1.21768	−170	0.00080	8.782	1.10726	−132	0.00132	8.891
29	1.36282	−270	0.00041	8.637	1.21559	−191	0.00080	8.784	1.10563	−149	0.00133	8.893
30	1.35991	−281	0.00041	8.640	1.21351	−203	0.00081	8.786	1.10402	−159	0.00134	8.895
31	1.35702	− 28	0.00042	8.643	1.21145	− 20	0.00082	8.788	1.10240	− 16	0.00135	8.896
32	1.35415	− 56	0.00042	8.645	1.20939	− 41	0.00083	8.790	1.10080	− 32	0.00136	8.898
33	1.35130	− 84	0.00043	8.648	1.20734	− 61	0.00083	8.792	1.09920	− 48	0.00137	8.899
34	1.34846	−112	0.00044	8.651	1.20530	− 81	0.00084	8.794	1.09760	− 64	0.00138	8.901
35	1.34565	−141	0.00044	8.654	1.20327	−102	0.00085	8.796	1.09601	− 80	0.00139	8.903
36	1.34285	−169	0.00045	8.657	1.20125	−122	0.00086	8.798	1.09443	− 95	0.00140	8.904
37	1.34007	−197	0.00045	8.659	1.19924	−142	0.00087	8.800	1.09285	−111	0.00141	8.906
38	1.33731	−225	0.00046	8.662	1.19723	−162	0.00087	8.802	1.09128	−127	0.00142	8.907
39	1.33457	−253	0.00046	8.665	1.19524	−183	0.00088	8.804	1.08971	−143	0.00143	8.909
40	1.33184	−264	0.00047	8.668	1.19326	−194	0.00089	8.806	1.08815	−153	0.00144	8.910
41	1.32913	− 26	0.00048	8.670	1.19128	− 19	0.00090	8.808	1.08660	− 15	0.00145	8.912
42	1.32644	− 53	0.00048	8.673	1.18932	− 39	0.00091	8.810	1.08505	− 31	0.00146	8.913
43	1.32376	− 79	0.00049	8.676	1.18736	− 58	0.00091	8.812	1.08350	− 46	0.00147	8.915
44	1.32110	−106	0.00049	8.678	1.18541	− 78	0.00092	8.814	1.08197	− 61	0.00148	8.917
45	1.31846	−132	0.00050	8.681	1.18347	− 97	0.00093	8.816	1.08043	− 77	0.00149	8.918
46	1.31583	−158	0.00051	8.684	1.18154	−116	0.00094	8.818	1.07890	− 92	0.00150	8.920
47	1.31322	−185	0.00051	8.686	1.17962	−136	0.00095	8.819	1.07738	−107	0.00152	8.921
48	1.31062	−211	0.00052	8.689	1.17770	−155	0.00096	8.821	1.07586	−122	0.00153	8.923
49	1.30804	−238	0.00052	8.691	1.17580	−175	0.00096	8.823	1.07435	−138	0.00154	8.924
50	1.30547	−249	0.00053	8.694	1.17390	−185	0.00097	8.825	1.07284	−148	0.00155	8.926
51	1.30292	− 25	0.00054	8.697	1.17201	− 19	0.00098	8.827	1.07134	− 15	0.00156	8.927
52	1.30038	− 50	0.00054	8.699	1.17013	− 37	0.00099	8.829	1.06984	− 30	0.00157	8.929
53	1.29786	− 75	0.00055	8.702	1.16825	− 56	0.00100	8.831	1.06835	− 44	0.00158	8.930
54	1.29535	−100	0.00056	8.704	1.16639	− 74	0.00101	8.833	1.06687	− 59	0.00159	8.932
55	1.29286	−125	0.00056	8.707	1.16453	− 93	0.00102	8.834	1.06538	− 74	0.00160	8.933
56	1.29038	−149	0.00057	8.709	1.16268	−111	0.00102	8.836	1.06391	− 89	0.00161	8.934
57	1.28792	−174	0.00058	8.712	1.16084	−130	0.00103	8.838	1.06244	−104	0.00162	8.936
58	1.28547	−199	0.00058	8.714	1.15900	−148	0.00104	8.840	1.06097	−118	0.00163	8.937
59	1.28303	−224	0.00059	8.716	1.15718	−167	0.00105	8.842	1.05951	−133	0.00164	8.939
60	1.28060		0.00060	8.719	1.15536		0.00106	8.844	1.05805		0.00166	8.940

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

第 6 表 III　高度及方位角計算表　**K 表**

KJ符號 ltdトガ　h……0°−90°−180°−270°−360°
同名ナルトキ　+ ～ ～ +
異名ナルトキ　～ + + ～

′	5°				6°				7°			
	K_3		A_2	Z_2	K_3		A_2	Z_2	K_3		A_2	Z_2
	L. Cot.	P.P.	L. Sec.	L. Sin.	L. Cot.	P.P.	L. Sec.	L. Sin.	L. Cot.	P.P.	L. Sec.	L. Sin.
0	1.05805	**−143**	0.00166	8.940	0.97838	**−120**	0.00239	9.019	0.91086	**−103**	0.00325	9.086
1	1.05660	− 14	0.00167	8.942	0.97717	− 12	0.00240	9.020	0.90981	− 10	0.00326	9.087
2	1.05515	− 29	0.00168	8.943	0.97596	− 24	0.00241	9.022	0.90877	− 21	0.00328	9.088
3	1.05370	− 43	0.00169	8.945	0.97475	− 36	0.00243	9.023	0.90773	− 31	0.00330	9.089
4	1.05227	− 57	0.00170	8.946	0.97355	− 48	0.00244	9.024	0.90670	− 41	0.00331	9.090
5	1.05083	− 72	0.00171	8.947	0.97234	− 60	0.00245	9.025	0.90566	− 52	0.00333	9.091
6	1.04940	− 86	0.00172	8.949	0.97115	− 72	0.00247	9.026	0.90463	− 62	0.00334	9.092
7	1.04798	−100	0.00173	8.950	0.96995	− 84	0.00248	9.028	0.90360	− 72	0.00336	9.093
8	1.04656	−114	0.00175	8.952	0.96876	− 96	0.00249	9.029	0.90258	− 82	0.00337	9.094
9	1.04514	−129	0.00176	8.953	0.96758	−108	0.00251	9.030	0.90155	− 93	0.00339	9.095
10	1.04373	**−139**	0.00177	8.954	0.96639	**−117**	0.00252	9.031	0.90053	**−101**	0.00341	9.096
11	1.04233	− 14	0.00178	8.956	0.96521	− 12	0.00253	9.032	0.89951	− 10	0.00342	9.097
12	1.04092	− 28	0.00179	8.957	0.96403	− 23	0.00255	9.033	0.89850	− 20	0.00344	9.098
13	1.03953	− 42	0.00180	8.959	0.96286	− 35	0.00256	9.035	0.89748	− 30	0.00345	9.099
14	1.03813	− 56	0.00181	8.960	0.96168	− 47	0.00258	9.036	0.89647	− 40	0.00347	9.100
15	1.03675	− 70	0.00183	8.961	0.96052	− 59	0.00259	9.037	0.89546	− 51	0.00349	9.101
16	1.03536	− 83	0.00184	8.963	0.95935	− 70	0.00260	9.038	0.89445	− 61	0.00350	9.102
17	1.03398	− 97	0.00185	8.964	0.95819	− 82	0.00262	9.039	0.89344	− 71	0.00352	9.103
18	1.03261	−111	0.00186	8.966	0.95703	− 94	0.00263	9.040	0.89244	− 81	0.00353	9.104
19	1.03123	−125	0.00187	8.967	0.95587	−105	0.00264	9.041	0.89144	− 91	0.00355	9.105
20	1.02987	**−134**	0.00188	8.968	0.95472	**−114**	0.00266	9.043	0.89044	**− 99**	0.00357	9.106
21	1.02850	− 13	0.00190	8.970	0.95357	− 11	0.00267	9.044	0.88944	− 10	0.00358	9.107
22	1.02715	− 27	0.00191	8.971	0.95242	− 23	0.00269	9.045	0.88845	− 20	0.00360	9.108
23	1.02579	− 40	0.00192	8.972	0.95127	− 34	0.00270	9.046	0.88746	− 30	0.00362	9.109
24	1.02444	− 54	0.00193	8.974	0.95013	− 46	0.00272	9.047	0.88647	− 40	0.00363	9.110
25	1.02309	− 67	0.00194	8.975	0.94899	− 57	0.00273	9.048	0.88548	− 50	0.00365	9.111
26	1.02175	− 80	0.00196	8.976	0.94786	− 68	0.00274	9.049	0.88449	− 59	0.00367	9.112
27	1.02041	− 94	0.00197	8.978	0.94672	− 80	0.00276	9.051	0.88351	− 69	0.00368	9.113
28	1.01908	−107	0.00198	8.979	0.94559	− 91	0.00277	9.052	0.88253	− 79	0.00370	9.114
29	1.01775	−121	0.00199	8.980	0.94447	−103	0.00279	9.053	0.88155	− 89	0.00371	9.115
30	1.01642	**−130**	0.00200	8.982	0.94334	**−111**	0.00280	9.054	0.88057	**− 97**	0.00373	9.116
31	1.01510	− 13	0.00202	8.983	0.94222	− 11	0.00282	9.055	0.87960	− 10	0.00375	9.117
32	1.01378	− 26	0.00203	8.984	0.94110	− 22	0.00283	9.056	0.87862	− 19	0.00376	9.118
33	1.01247	− 39	0.00204	8.985	0.93998	− 33	0.00284	9.057	0.87765	− 29	0.00378	9.119
34	1.01116	− 52	0.00205	8.987	0.93887	− 44	0.00286	9.058	0.87668	− 39	0.00380	9.120
35	1.00985	− 65	0.00207	8.988	0.93776	− 56	0.00287	9.059	0.87572	− 49	0.00382	9.120
36	1.00855	− 78	0.00208	8.989	0.93665	− 67	0.00289	9.060	0.87475	− 58	0.00383	9.121
37	1.00725	− 91	0.00209	8.991	0.93555	− 78	0.00290	9.062	0.87379	− 68	0.00385	9.122
38	1.00595	−104	0.00210	8.992	0.93444	− 89	0.00292	9.063	0.87283	− 78	0.00387	9.123
39	1.00466	−117	0.00212	8.993	0.93334	−100	0.00293	9.064	0.87187	− 87	0.00388	9.124
40	1.00338	**−127**	0.00213	8.994	0.93225	**−108**	0.00295	9.065	0.87091	**− 95**	0.00390	9.125
41	1.00209	− 13	0.00214	8.996	0.93115	− 11	0.00296	9.066	0.86996	− 10	0.00392	9.126
42	1.00081	− 25	0.00215	8.997	0.93006	− 22	0.00298	9.067	0.86901	− 19	0.00393	9.127
43	0.99954	− 38	0.00217	8.998	0.92897	− 32	0.00299	9.068	0.86806	− 29	0.00395	9.128
44	0.99826	− 51	0.00218	9.000	0.92789	− 43	0.00301	9.069	0.86711	− 38	0.00397	9.129
45	0.99699	− 64	0.00219	9.001	0.92680	− 54	0.00302	9.070	0.86616	− 48	0.00399	9.130
46	0.99573	− 76	0.00220	9.002	0.92572	− 65	0.00304	9.071	0.86522	− 57	0.00400	9.131
47	0.99447	− 89	0.00222	9.003	0.92464	− 76	0.00305	9.072	0.86427	− 67	0.00402	9.132
48	0.99321	−102	0.00223	9.005	0.92357	− 86	0.00307	9.073	0.86333	− 76	0.00404	9.133
49	0.99195	−114	0.00224	9.006	0.92249	− 97	0.00308	9.074	0.86239	− 86	0.00405	9.134
50	0.99070	**−123**	0.00225	9.007	0.92142	**−106**	0.00310	9.075	0.86146	**− 93**	0.00407	9.134
51	0.98945	− 12	0.00227	9.008	0.92036	− 11	0.00311	9.077	0.86052	− 9	0.00409	9.135
52	0.98821	− 25	0.00228	9.010	0.91929	− 21	0.00313	9.078	0.85959	− 19	0.00411	9.136
53	0.98697	− 37	0.00229	9.011	0.91823	− 32	0.00314	9.079	0.85866	− 28	0.00412	9.137
54	0.98573	− 49	0.00231	9.012	0.91717	− 42	0.00316	9.080	0.85773	− 37	0.00414	9.138
55	0.98450	− 62	0.00232	9.013	0.91611	− 53	0.00317	9.081	0.85680	− 47	0.00416	9.139
56	0.98327	− 74	0.00233	9.014	0.91505	− 64	0.00319	9.082	0.85588	− 56	0.00418	9.140
57	0.98204	− 86	0.00235	9.016	0.91400	− 74	0.00320	9.083	0.85496	− 65	0.00419	9.141
58	0.98082	− 98	0.00236	9.017	0.91295	− 85	0.00322	9.084	0.85403	− 74	0.00421	9.142
59	0.97960	−111	0.00237	9.018	0.91190	− 95	0.00323	9.085	0.85312	− 84	0.00423	9.143
60	0.97838		0.00239	9.019	0.91086		0.00325	9.086	0.85220		0.00425	9.144

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

第 6 表 III　高度及方位角計算表　**K 表**

KJ符號 ltdトガ　h……0°−90°−180°−270°−360°
同名ナルトキ　+ ～ ～ +
異名ナルトキ　～ + + ～

′	8°				9°				10°			
	K_3		A_2	Z_2	K_3		A_2	Z_2	K_3		A_2	Z_2
	L. Cot.	P.P.	L. Sec.	L. Sin.	L. Cot.	P.P.	L. Sec.	L. Sin.	L. Cot.	P.P.	L. Sec.	L. Sin.
0	0.85220	**−91**	0.00425	9.144	0.80029	**−81**	0.00538	9.194	0.75368	**−73**	0.00665	9.240
1	0.85128	− 9	0.00426	9.144	0.79947	− 8	0.00540	9.195	0.75294	− 7	0.00667	9.240
2	0.85037	−18	0.00428	9.145	0.79866	−16	0.00542	9.196	0.75221	−15	0.00669	9.241
3	0.84946	−27	0.00430	9.146	0.79784	−24	0.00544	9.197	0.75147	−22	0.00672	9.242
4	0.84855	−36	0.00432	9.147	0.79703	−32	0.00546	9.198	0.75074	−29	0.00674	9.243
5	0.84764	−46	0.00434	9.148	0.79622	−41	0.00548	9.198	0.75000	−37	0.00676	9.243
6	0.84673	−55	0.00435	9.149	0.79541	−49	0.00550	9.199	0.74927	−44	0.00678	9.244
7	0.84583	−64	0.00437	9.150	0.79460	−57	0.00552	9.200	0.74854	−51	0.00681	9.245
8	0.84492	−73	0.00439	9.151	0.79379	−65	0.00554	9.201	0.74781	−58	0.00683	9.245
9	0.84402	−82	0.00441	9.152	0.79299	−73	0.00556	9.201	0.74708	−66	0.00685	9.246
10	0.84312	**−89**	0.00443	9.152	0.79218	**−80**	0.00558	9.202	0.74635	**−72**	0.00687	9.247
11	0.84223	− 9	0.00444	9.153	0.79138	− 8	0.00560	9.203	0.74563	− 7	0.00690	9.247
12	0.84133	−18	0.00446	9.154	0.79058	−16	0.00562	9.204	0.74490	−14	0.00692	9.248
13	0.84044	−27	0.00448	9.155	0.78978	−24	0.00564	9.205	0.74418	−22	0.00694	9.249
14	0.83954	−36	0.00450	9.156	0.78898	−32	0.00566	9.205	0.74345	−29	0.00696	9.250
15	0.83865	−45	0.00452	9.157	0.78818	−40	0.00568	9.206	0.74273	−36	0.00699	9.250
16	0.83776	−53	0.00454	9.158	0.78739	−48	0.00571	9.207	0.74201	−43	0.00701	9.251
17	0.83688	−62	0.00455	9.159	0.78659	−56	0.00573	9.208	0.74129	−50	0.00703	9.252
18	0.83599	−71	0.00457	9.159	0.78580	−64	0.00575	9.208	0.74057	−58	0.00706	9.252
19	0.83511	−80	0.00459	9.160	0.78501	−72	0.00577	9.209	0.73985	−65	0.00708	9.253
20	0.83423	**−87**	0.00461	9.161	0.78422	**−78**	0.00579	9.210	0.73914	**−71**	0.00710	9.254
21	0.83335	− 9	0.00463	9.162	0.78343	− 8	0.00581	9.211	0.73842	− 7	0.00712	9.254
22	0.83247	−17	0.00465	9.163	0.78264	−16	0.00583	9.212	0.73771	−14	0.00715	9.255
23	0.83159	−26	0.00467	9.164	0.78186	−23	0.00585	9.212	0.73699	−21	0.00717	9.256
24	0.83072	−35	0.00468	9.165	0.78107	−31	0.00587	9.213	0.73628	−28	0.00719	9.257
25	0.82984	−44	0.00470	9.165	0.78029	−39	0.00589	9.214	0.73557	−36	0.00722	9.257
26	0.82897	−52	0.00472	9.166	0.77951	−47	0.00591	9.215	0.73486	−43	0.00724	9.258
27	0.82810	−61	0.00474	9.167	0.77873	−55	0.00593	9.215	0.73415	−50	0.00726	9.259
28	0.82723	−70	0.00476	9.168	0.77795	−62	0.00596	9.216	0.73345	−57	0.00729	9.259
29	0.82637	−78	0.00478	9.169	0.77717	−70	0.00598	9.217	0.73274	−64	0.00731	9.260
30	0.82550	**−86**	0.00480	9.170	0.77639	**−77**	0.00600	9.218	0.73203	**−70**	0.00733	9.261
31	0.82464	− 9	0.00482	9.171	0.77562	− 8	0.00602	9.218	0.73133	− 7	0.00736	9.261
32	0.82378	−17	0.00483	9.171	0.77484	−15	0.00604	9.219	0.73063	−14	0.00738	9.262
33	0.82292	−26	0.00485	9.172	0.77407	−23	0.00606	9.220	0.72992	−21	0.00740	9.263
34	0.82206	−34	0.00487	9.173	0.77330	−31	0.00608	9.221	0.72922	−28	0.00743	9.263
35	0.82120	−43	0.00489	9.174	0.77253	−39	0.00610	9.221	0.72852	−35	0.00745	9.264
36	0.82035	−52	0.00491	9.175	0.77176	−46	0.00612	9.222	0.72782	−42	0.00748	9.265
37	0.81949	−60	0.00493	9.176	0.77099	−54	0.00615	9.223	0.72712	−49	0.00750	9.265
38	0.81864	−69	0.00495	9.176	0.77023	−62	0.00617	9.224	0.72643	−56	0.00752	9.266
39	0.81779	−77	0.00497	9.177	0.76946	−69	0.00619	9.224	0.72573	−63	0.00755	9.267
40	0.81694	**−84**	0.00499	9.178	0.76870	**−76**	0.00621	9.225	0.72504	**−69**	0.00757	9.267
41	0.81609	− 8	0.00501	9.179	0.76794	− 8	0.00623	9.226	0.72434	− 7	0.00759	9.268
42	0.81525	−17	0.00503	9.180	0.76717	−15	0.00625	9.227	0.72365	−14	0.00762	9.269
43	0.81440	−25	0.00505	9.181	0.76641	−23	0.00628	9.227	0.72296	−21	0.00764	9.269
44	0.81356	−34	0.00506	9.181	0.76565	−30	0.00630	9.228	0.72227	−28	0.00767	9.270
45	0.81272	−42	0.00508	9.182	0.76490	−38	0.00632	9.229	0.72158	−35	0.00769	9.271
46	0.81188	−50	0.00510	9.183	0.76414	−46	0.00634	9.230	0.72089	−41	0.00771	9.271
47	0.81104	−59	0.00512	9.184	0.76339	−53	0.00636	9.230	0.72020	−48	0.00774	9.272
48	0.81021	−67	0.00514	9.185	0.76263	−61	0.00638	9.231	0.71951	−55	0.00776	9.273
49	0.80937	−76	0.00516	9.185	0.76188	−68	0.00641	9.232	0.71883	−62	0.00779	9.273
50	0.80854	**−83**	0.00518	9.186	0.76113	**−74**	0.00643	9.232	0.71814	**−68**	0.00781	9.274
51	0.80771	− 8	0.00520	9.187	0.76038	− 7	0.00645	9.233	0.71746	− 7	0.00783	9.275
52	0.80688	−17	0.00522	9.188	0.75963	−15	0.00647	9.234	0.71677	−14	0.00786	9.275
53	0.80605	−25	0.00524	9.189	0.75888	−22	0.00649	9.235	0.71609	−20	0.00788	9.276
54	0.80522	−33	0.00526	9.190	0.75814	−30	0.00652	9.235	0.71541	−27	0.00791	9.277
55	0.80439	−42	0.00528	9.190	0.75739	−37	0.00654	9.236	0.71473	−34	0.00793	9.277
56	0.80357	−50	0.00530	9.191	0.75665	−44	0.00656	9.237	0.71405	−41	0.00796	9.278
57	0.80275	−58	0.00532	9.192	0.75590	−52	0.00658	9.238	0.71338	−48	0.00798	9.279
58	0.80193	−66	0.00534	9.193	0.75516	−59	0.00660	9.238	0.71270	−54	0.00800	9.279
59	0.80111	−75	0.00536	9.194	0.75442	−67	0.00663	9.239	0.71202	−61	0.00803	9.280
60	0.80029		0.00538	9.194	0.75368		0.00665	9.240	0.71135		0.00805	9.281

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

第 6 表 III

高度及方位角計算表 K 表

K ノ符號 ltdt ガ { h……0°−90°−180°−270°−360°
同名ナルトキ + ～ ～ +
異名ナルトキ ～ + + ～

′	11°				12°				13°			
	K_3		A_2	Z_2	K_3		A_2	Z_2	K_3		A_2	Z_2
	L. Cot.	P.P.	L. Sec.	L. Sin.	L. Cot.	P.P.	L. Sec.	L. Sin.	L. Cot.	P.P.	L. Sec.	L. Sin.
0	0.71135	−67	0.00805	9.281	0.67253	−62	0.00960	9.318	0.63664	−57	0.01128	9.352
1	0.71067	− 7	0.00808	9.281	0.67190	− 6	0.00962	9.318	0.63606	− 6	0.01131	9.353
2	0.71000	−13	0.00810	9.282	0.67128	−12	0.00965	9.319	0.63548	−11	0.01133	9.353
3	0.70933	−20	0.00813	9.283	0.67067	−19	0.00968	9.320	0.63491	−17	0.01136	9.354
4	0.70866	−27	0.00815	9.283	0.67005	−25	0.00970	9.320	0.63434	−23	0.01139	9.354
5	0.70799	−34	0.00818	9.284	0.66943	−31	0.00973	9.321	0.63376	−29	0.01142	9.355
6	0.70732	−40	0.00820	9.284	0.66881	−37	0.00976	9.321	0.63319	−34	0.01145	9.355
7	0.70665	−47	0.00823	9.285	0.66820	−43	0.00978	9.322	0.63262	−40	0.01148	9.356
8	0.70598	−54	0.00825	9.286	0.66758	−50	0.00981	9.323	0.63205	−46	0.01151	9.356
9	0.70532	−60	0.00828	9.286	0.66697	−56	0.00984	9.323	0.63148	−51	0.01154	9.357
10	0.70465	−66	0.00830	9.287	0.66635	−61	0.00987	9.324	0.63091	−57	0.01157	9.358
11	0.70399	− 7	0.00833	9.288	0.66574	− 6	0.00989	9.324	0.63034	− 6	0.01160	9.358
12	0.70332	−13	0.00835	9.288	0.66513	−12	0.00992	9.325	0.62977	−11	0.01163	9.359
13	0.70266	−20	0.00838	9.289	0.66452	−18	0.00995	9.326	0.62920	−17	0.01166	9.359
14	0.70200	−26	0.00840	9.290	0.66391	−24	0.00998	9.326	0.62863	−23	0.01169	9.360
15	0.70134	−33	0.00843	9.290	0.66330	−31	0.01000	9.327	0.62807	−29	0.01172	9.360
16	0.70068	−40	0.00845	9.291	0.66269	−37	0.01003	9.327	0.62750	−34	0.01175	9.361
17	0.70002	−46	0.00848	9.292	0.66208	−43	0.01006	9.328	0.62694	−40	0.01178	9.361
18	0.69936	−53	0.00850	9.292	0.66147	−49	0.01009	9.328	0.62637	−46	0.01181	9.362
19	0.69870	−59	0.00853	9.293	0.66087	−55	0.01011	9.329	0.62581	−51	0.01184	9.362
20	0.69805	−65	0.00855	9.293	0.66026	−60	0.01014	9.330	0.62524	−56	0.01187	9.363
21	0.69739	− 7	0.00858	9.294	0.65966	− 6	0.01017	9.330	0.62468	− 6	0.01190	9.363
22	0.69674	−13	0.00860	9.295	0.65905	−12	0.01020	9.331	0.62412	−11	0.01193	9.364
23	0.69609	−20	0.00863	9.295	0.65845	−18	0.01022	9.331	0.62356	−17	0.01196	9.364
24	0.69543	−26	0.00865	9.296	0.65785	−24	0.01025	9.332	0.62300	−22	0.01199	9.365
25	0.69478	−33	0.00868	9.297	0.65724	−30	0.01028	9.332	0.62244	−28	0.01202	9.366
26	0.69413	−39	0.00870	9.297	0.65664	−36	0.01031	9.333	0.62188	−34	0.01205	9.366
27	0.69348	−46	0.00873	9.298	0.65604	−42	0.01033	9.334	0.62132	−39	0.01208	9.367
28	0.69283	−52	0.00876	9.298	0.65544	−48	0.01036	9.334	0.62076	−45	0.01211	9.367
29	0.69218	−59	0.00878	9.299	0.65484	−54	0.01039	9.335	0.62020	−50	0.01214	9.368
30	0.69154	−64	0.00881	9.300	0.65424	−59	0.01042	9.335	0.61965	−55	0.01217	9.368
31	0.69089	− 6	0.00883	9.300	0.65365	− 6	0.01045	9.336	0.61909	− 6	0.01220	9.369
32	0.69025	−13	0.00886	9.301	0.65305	−12	0.01047	9.336	0.61853	−11	0.01223	9.369
33	0.68960	−19	0.00888	9.302	0.65245	−18	0.01050	9.337	0.61798	−17	0.01226	9.370
34	0.68896	−26	0.00891	9.302	0.65186	−24	0.01053	9.338	0.61743	−22	0.01229	9.370
35	0.68832	−32	0.00894	9.303	0.65126	−30	0.01056	9.338	0.61687	−28	0.01232	9.371
36	0.68767	−38	0.00896	9.303	0.65067	−35	0.01059	9.339	0.61632	−33	0.01235	9.371
37	0.68703	−45	0.00899	9.304	0.65008	−41	0.01062	9.339	0.61577	−39	0.01238	9.372
38	0.68639	−51	0.00901	9.305	0.64949	−47	0.01064	9.340	0.61521	−44	0.01241	9.372
39	0.68575	−58	0.00904	9.305	0.64889	−53	0.01067	9.340	0.61466	−50	0.01244	9.373
40	0.68511	−63	0.00907	9.306	0.64830	−59	0.01070	9.341	0.61411	−55	0.01247	9.373
41	0.68448	− 6	0.00909	9.306	0.64771	− 6	0.01073	9.342	0.61356	− 6	0.01250	9.374
42	0.68384	−13	0.00912	9.307	0.64712	−12	0.01076	9.342	0.61301	−11	0.01254	9.374
43	0.68321	−19	0.00914	9.308	0.64653	−18	0.01079	9.343	0.61246	−17	0.01257	9.375
44	0.68257	−25	0.00917	9.308	0.64595	−24	0.01081	9.343	0.61192	−22	0.01260	9.375
45	0.68194	−32	0.00920	9.309	0.64536	−30	0.01084	9.344	0.61137	−28	0.01263	9.376
46	0.68130	−38	0.00922	9.309	0.64477	−35	0.01087	9.344	0.61082	−33	0.01266	9.377
47	0.68067	−44	0.00925	9.310	0.64419	−41	0.01090	9.345	0.61028	−39	0.01269	9.377
48	0.68004	−50	0.00928	9.311	0.64360	−47	0.01093	9.345	0.60973	−44	0.01272	9.378
49	0.67941	−57	0.00930	9.311	0.64302	−53	0.01096	9.346	0.60918	−50	0.01275	9.378
50	0.67878	−63	0.00933	9.312	0.64243	−58	0.01099	9.347	0.60864	−54	0.01278	9.379
51	0.67815	− 6	0.00936	9.312	0.64185	− 6	0.01102	9.347	0.60810	− 5	0.01281	9.379
52	0.67752	−13	0.00938	9.313	0.64127	−12	0.01104	9.348	0.60755	−11	0.01285	9.380
53	0.67689	−19	0.00941	9.314	0.64069	−17	0.01107	9.348	0.60701	−16	0.01288	9.380
54	0.67627	−25	0.00944	9.314	0.64011	−23	0.01110	9.349	0.60647	−22	0.01291	9.381
55	0.67564	−32	0.00946	9.315	0.63953	−29	0.01113	9.349	0.60593	−27	0.01294	9.381
56	0.67502	−38	0.00949	9.315	0.63895	−35	0.01116	9.350	0.60539	−32	0.01297	9.382
57	0.67439	−44	0.00952	9.316	0.63837	−41	0.01119	9.350	0.60485	−38	0.01300	9.382
58	0.67377	−50	0.00954	9.317	0.63779	−46	0.01122	9.351	0.60431	−43	0.01303	9.383
59	0.67315	−57	0.00957	9.317	0.63721	−52	0.01125	9.352	0.60377	−49	0.01306	9.383
60	0.67253		0.00960	9.318	0.63664		0.01128	9.352	0.60323		0.01310	9.384

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

第 6 表 III

高度及方位角計算表 K 表

K ノ符號 ltdt ガ { h……0°−90°−180°−270°−360°
同名ナルトキ + ～ ～ +
異名ナルトキ ～ + + ～

′	14°				15°				16°			
	K_3		A_2	Z_2	K_3		A_2	Z_2	K_3		A_2	Z_2
	L. Cot.	P.P.	L. Sec.	L. Sin.	L. Cot.	P.P.	L. Sec.	L. Sin.	L. Cot.	P.P.	L. Sec.	L. Sin.
0	0.60323	−54	0.01310	9.384	0.57195	−50	0.01506	9.413	0.54250	−47	0.01716	9.440
1	0.60269	− 5	0.01313	9.384	0.57144	− 5	0.01509	9.413	0.54203	− 5	0.01719	9.441
2	0.60215	−11	0.01316	9.385	0.57094	−10	0.01512	9.414	0.54155	− 9	0.01723	9.441
3	0.60162	−16	0.01319	9.385	0.57043	−15	0.01516	9.414	0.54108	−14	0.01727	9.442
4	0.60108	−22	0.01322	9.386	0.56993	−20	0.01519	9.415	0.54060	−19	0.01730	9.442
5	0.60055	−27	0.01325	9.386	0.56943	−25	0.01523	9.415	0.54013	−24	0.01734	9.443
6	0.60001	−32	0.01329	9.387	0.56892	−30	0.01526	9.416	0.53965	−28	0.01738	9.443
7	0.59948	−38	0.01332	9.387	0.56842	−35	0.01529	9.416	0.53918	−33	0.01741	9.443
8	0.59894	−43	0.01335	9.388	0.56792	−40	0.01533	9.417	0.53870	−38	0.01745	9.444
9	0.59841	−49	0.01338	9.388	0.56742	−45	0.01536	9.417	0.53823	−42	0.01749	9.444
10	0.59788	−53	0.01341	9.389	0.56692	−50	0.01540	9.418	0.53776	−47	0.01752	9.445
11	0.59734	− 5	0.01344	9.389	0.56642	− 5	0.01543	9.418	0.53729	− 5	0.01756	9.445
12	0.59681	−11	0.01348	9.390	0.56592	−10	0.01547	9.419	0.53681	− 9	0.01760	9.446
13	0.59628	−16	0.01351	9.390	0.56542	−15	0.01550	9.419	0.53634	−14	0.01763	9.446
14	0.59575	−21	0.01354	9.391	0.56492	−20	0.01553	9.420	0.53587	−19	0.01767	9.446
15	0.59522	−27	0.01357	9.391	0.56442	−25	0.01557	9.420	0.53540	−24	0.01771	9.447
16	0.59469	−32	0.01360	9.392	0.56393	−30	0.01560	9.420	0.53493	−28	0.01774	9.447
17	0.59416	−37	0.01364	9.392	0.56343	−35	0.01564	9.421	0.53446	−33	0.01778	9.448
18	0.59364	−42	0.01367	9.393	0.56293	−40	0.01567	9.421	0.53399	−38	0.01782	9.448
19	0.59311	−48	0.01370	9.393	0.56244	−45	0.01571	9.422	0.53352	−42	0.01785	9.449
20	0.59258	−52	0.01373	9.394	0.56194	−49	0.01574	9.422	0.53306	−47	0.01789	9.449
21	0.59205	− 5	0.01377	9.394	0.56145	− 5	0.01578	9.423	0.53259	− 5	0.01793	9.449
22	0.59153	−10	0.01380	9.395	0.56095	−10	0.01581	9.423	0.53212	− 9	0.01796	9.450
23	0.59100	−16	0.01383	9.395	0.56046	−15	0.01585	9.424	0.53165	−14	0.01800	9.450
24	0.59048	−21	0.01386	9.396	0.55996	−20	0.01588	9.424	0.53119	−19	0.01804	9.451
25	0.58995	−26	0.01390	9.396	0.55947	−25	0.01591	9.425	0.53072	−24	0.01808	9.451
26	0.58943	−31	0.01393	9.397	0.55898	−29	0.01595	9.425	0.53025	−28	0.01811	9.452
27	0.58891	−36	0.01396	9.397	0.55849	−34	0.01598	9.426	0.52979	−33	0.01815	9.452
28	0.58839	−42	0.01399	9.398	0.55799	−39	0.01602	9.426	0.52932	−38	0.01819	9.452
29	0.58786	−47	0.01403	9.398	0.55750	−44	0.01605	9.426	0.52886	−42	0.01823	9.453
30	0.58734	−52	0.01406	9.399	0.55701	−49	0.01609	9.427	0.52840	−46	0.01826	9.453
31	0.58682	− 5	0.01409	9.399	0.55652	− 5	0.01612	9.427	0.52793	− 5	0.01830	9.454
32	0.58630	−10	0.01412	9.400	0.55603	−10	0.01616	9.428	0.52747	− 9	0.01834	9.454
33	0.58578	−16	0.01416	9.400	0.55554	−15	0.01619	9.428	0.52701	−14	0.01838	9.455
34	0.58526	−21	0.01419	9.401	0.55505	−20	0.01623	9.429	0.52654	−18	0.01841	9.455
35	0.58474	−26	0.01422	9.401	0.55456	−25	0.01627	9.429	0.52608	−23	0.01845	9.455
36	0.58422	−31	0.01426	9.402	0.55408	−29	0.01630	9.430	0.52562	−28	0.01849	9.456
37	0.58371	−36	0.01429	9.402	0.55359	−34	0.01634	9.430	0.52516	−32	0.01853	9.456
38	0.58319	−42	0.01432	9.402	0.55310	−39	0.01637	9.431	0.52470	−37	0.01856	9.457
39	0.58267	−47	0.01435	9.403	0.55262	−44	0.01641	9.431	0.52424	−41	0.01860	9.457
40	0.58216	−51	0.01439	9.403	0.55213	−48	0.01644	9.431	0.52378	−46	0.01864	9.458
41	0.58164	− 5	0.01442	9.404	0.55164	− 5	0.01648	9.432	0.52332	− 5	0.01868	9.458
42	0.58113	−10	0.01445	9.404	0.55116	−10	0.01651	9.432	0.52286	− 9	0.01871	9.458
43	0.58061	−15	0.01449	9.405	0.55067	−14	0.01655	9.433	0.52240	−14	0.01875	9.459
44	0.58010	−20	0.01452	9.405	0.55019	−19	0.01658	9.433	0.52194	−18	0.01879	9.459
45	0.57959	−26	0.01455	9.406	0.54971	−24	0.01662	9.434	0.52148	−23	0.01883	9.460
46	0.57907	−31	0.01459	9.406	0.54922	−29	0.01666	9.434	0.52103	−28	0.01887	9.460
47	0.57856	−36	0.01462	9.407	0.54874	−34	0.01669	9.435	0.52057	−32	0.01890	9.461
48	0.57805	−41	0.01465	9.407	0.54826	−38	0.01673	9.435	0.52011	−37	0.01894	9.461
49	0.57754	−46	0.01469	9.408	0.54778	−43	0.01676	9.435	0.51965	−41	0.01898	9.461
50	0.57703	−51	0.01472	9.408	0.54729	−48	0.01680	9.436	0.51920	−45	0.01902	9.462
51	0.57652	− 5	0.01475	9.409	0.54681	− 5	0.01683	9.436	0.51874	− 5	0.01906	9.462
52	0.57601	−10	0.01479	9.409	0.54633	−10	0.01687	9.437	0.51829	− 9	0.01910	9.463
53	0.57550	−15	0.01482	9.410	0.54585	−14	0.01691	9.437	0.51783	−14	0.01913	9.463
54	0.57499	−20	0.01485	9.410	0.54537	−19	0.01694	9.438	0.51738	−18	0.01917	9.463
55	0.57448	−26	0.01489	9.411	0.54489	−24	0.01698	9.438	0.51693	−23	0.01921	9.464
56	0.57397	−31	0.01492	9.411	0.54441	−29	0.01701	9.439	0.51647	−27	0.01925	9.464
57	0.57347	−36	0.01495	9.412	0.54394	−34	0.01705	9.439	0.51602	−32	0.01929	9.465
58	0.57296	−41	0.01499	9.412	0.54346	−38	0.01709	9.439	0.51557	−36	0.01933	9.465
59	0.57245	−46	0.01502	9.413	0.54298	−43	0.01712	9.440	0.51511	−41	0.01937	9.466
60	0.57195		0.01506	9.413	0.54250		0.01716	9.440	0.51466		0.01940	9.466

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

第 6 表 III　高度及方位角計算表　**K 表**

KJ符號 ltdtガ　h……0°−90°−180°−270°−360°
同名ナルトキ　+ ～ ～ +
異名ナルトキ　～ + + ～

′	17°					18°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	0.51466	**−45**	0.01940	**4**	9.466	0.48822	**−43**	0.02179	**4**	9.490	0
1	0.51421	− 5	0.01944	0	9.466	0.48779	− 4	0.02183	0	9.490	1
2	0.51376	− 9	0.01948	1	9.467	0.48736	− 9	0.02188	1	9.491	2
3	0.51331	−14	0.01952	1	9.467	0.48694	−13	0.02192	1	9.491	3
4	0.51286	−18	0.01956	2	9.468	0.48651	−17	0.02196	2	9.492	4
5	0.51241	−23	0.01960	2	9.468	0.48608	−22	0.02200	2	9.492	5
6	0.51196	−27	0.01964	2	9.468	0.48565	−26	0.02204	2	9.492	6
7	0.51151	−32	0.01968	3	9.469	0.48522	−30	0.02208	3	9.493	7
8	0.51106	−36	0.01971	3	9.469	0.48480	−34	0.02212	3	9.493	8
9	0.51061	−41	0.01975	4	9.470	0.48437	−39	0.02216	4	9.493	9
10	0.51016	**−45**	0.01979	**4**	9.470	0.48394	**−42**	0.02221	**4**	9.494	10
11	0.50971	− 5	0.01983	0	9.470	0.48352	− 4	0.02225	0	9.494	11
12	0.50927	− 9	0.01987	1	9.471	0.48309	− 8	0.02229	1	9.495	12
13	0.50882	−14	0.01991	1	9.471	0.48266	−13	0.02233	1	9.495	13
14	0.50837	−18	0.01995	2	9.472	0.48224	−17	0.02237	2	9.495	14
15	0.50793	−23	0.01999	2	9.472	0.48181	−21	0.02241	2	9.496	15
16	0.50748	−27	0.02003	2	9.472	0.48139	−25	0.02246	2	9.496	16
17	0.50704	−32	0.02007	3	9.473	0.48097	−29	0.02250	3	9.497	17
18	0.50659	−36	0.02011	3	9.473	0.48054	−34	0.02254	3	9.497	18
19	0.50615	−41	0.02014	4	9.474	0.48012	−38	0.02258	4	9.497	19
20	0.50570	**−44**	0.02018	**4**	9.474	0.47969	**−42**	0.02262	**4**	9.498	20
21	0.50526	− 4	0.02022	0	9.475	0.47927	− 4	0.02266	0	9.498	21
22	0.50481	− 9	0.02026	1	9.475	0.47885	− 8	0.02271	1	9.498	22
23	0.50437	−13	0.02030	1	9.475	0.47843	−13	0.02275	1	9.499	23
24	0.50393	−18	0.02034	2	9.476	0.47800	−17	0.02279	2	9.499	24
25	0.50348	−22	0.02038	2	9.476	0.47758	−21	0.02283	2	9.500	25
26	0.50304	−26	0.02042	2	9.477	0.47716	−25	0.02287	2	9.500	26
27	0.50260	−31	0.02046	3	9.477	0.47674	−29	0.02292	3	9.500	27
28	0.50216	−35	0.02050	3	9.477	0.47632	−34	0.02296	3	9.501	28
29	0.50172	−40	0.02054	4	9.478	0.47590	−38	0.02300	4	9.501	29
30	0.50128	**−44**	0.02058	**4**	9.478	0.47548	**−42**	0.02304	**4**	9.501	30
31	0.50084	− 4	0.02062	0	9.479	0.47506	− 4	0.02309	0	9.502	31
32	0.50040	− 9	0.02066	1	9.479	0.47464	− 8	0.02313	1	9.502	32
33	0.49996	−13	0.02070	1	9.479	0.47422	−13	0.02317	1	9.503	33
34	0.49952	−18	0.02074	2	9.480	0.47380	−17	0.02321	2	9.503	34
35	0.49908	−22	0.02078	2	9.480	0.47339	−21	0.02326	2	9.503	35
36	0.49864	−26	0.02082	2	9.481	0.47297	−25	0.02330	2	9.504	36
37	0.49820	−31	0.02086	3	9.481	0.47255	−29	0.02334	3	9.504	37
38	0.49777	−35	0.02090	3	9.481	0.47213	−34	0.02338	3	9.504	38
39	0.49733	−40	0.02094	4	9.482	0.47171	−38	0.02343	4	9.505	39
40	0.49689	**−44**	0.02098	**4**	9.482	0.47130	**−42**	0.02347	**4**	9.505	40
41	0.49645	− 4	0.02102	0	9.483	0.47088	− 4	0.02351	0	9.506	41
42	0.49602	− 9	0.02106	1	9.483	0.47047	− 8	0.02355	1	9.506	42
43	0.49558	−13	0.02110	1	9.483	0.47005	−13	0.02360	1	9.506	43
44	0.49515	−18	0.02114	2	9.484	0.46963	−17	0.02364	2	9.507	44
45	0.49471	−22	0.02118	2	9.484	0.46922	−21	0.02368	2	9.507	45
46	0.49428	−26	0.02122	2	9.485	0.46880	−25	0.02372	2	9.507	46
47	0.49384	−31	0.02126	3	9.485	0.46839	−29	0.02377	3	9.508	47
48	0.49341	−35	0.02130	3	9.485	0.46798	−34	0.02381	3	9.508	48
49	0.49297	−40	0.02134	4	9.486	0.46756	−38	0.02385	4	9.509	49
50	0.49254	**−43**	0.02139	**4**	9.486	0.46715	**−41**	0.02390	**4**	9.509	50
51	0.49211	− 4	0.02143	0	9.486	0.46673	− 4	0.02394	0	9.509	51
52	0.49167	− 9	0.02147	1	9.487	0.46632	− 8	0.02398	1	9.510	52
53	0.49124	−13	0.02151	1	9.487	0.46591	−12	0.02403	1	9.510	53
54	0.49081	−17	0.02155	2	9.488	0.46550	−16	0.02407	2	9.510	54
55	0.49038	−22	0.02159	2	9.488	0.46508	−21	0.02411	2	9.511	55
56	0.48995	−26	0.02163	2	9.488	0.46467	−25	0.02416	2	9.511	56
57	0.48952	−30	0.02167	3	9.489	0.46426	−29	0.02420	3	9.512	57
58	0.48908	−34	0.02171	3	9.489	0.46385	−33	0.02424	3	9.512	58
59	0.48865	−39	0.02175	4	9.490	0.46344	−37	0.02429	4	9.512	59
60	0.48822		0.02179		9.490	0.46303		0.02433		9.513	60

$K_1 + K_2 = K_3 \longrightarrow K \longrightarrow A_2,\ Z_2$

第 6 表 III　高度及方位角計算表　**K 表**

KJ符號 ltdtガ　h……0°−90°−180°−270°−360°
同名ナルトキ　+ ～ ～ +
異名ナルトキ　～ + + ～

′	19°					20°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	0.46303	**−41**	0.02433	**4**	9.513	0.43893	**−39**	0.02701	**5**	9.534	0
1	0.46262	− 4	0.02437	0	9.513	0.43854	− 4	0.02706	1	9.534	1
2	0.46221	− 8	0.02442	1	9.513	0.43815	− 8	0.02711	1	9.535	2
3	0.46180	−12	0.02446	1	9.514	0.43776	−12	0.02715	2	9.535	3
4	0.46139	−16	0.02450	2	9.514	0.43736	−16	0.02720	2	9.535	4
5	0.46098	−21	0.02455	2	9.514	0.43697	−20	0.02724	3	9.536	5
6	0.46057	−25	0.02459	2	9.515	0.43658	−23	0.02729	3	9.536	6
7	0.46016	−29	0.02464	3	9.515	0.43619	−27	0.02734	4	9.536	7
8	0.45975	−33	0.02468	3	9.516	0.43580	−31	0.02738	4	9.537	8
9	0.45935	−37	0.02472	4	9.516	0.43541	−35	0.02743	5	9.537	9
10	0.45894	**−41**	0.02477	**4**	9.516	0.43502	**−39**	0.02748	**5**	9.538	10
11	0.45853	− 4	0.02481	0	9.517	0.43463	− 4	0.02752	1	9.538	11
12	0.45813	− 8	0.02485	1	9.517	0.43424	− 8	0.02757	1	9.538	12
13	0.45772	−12	0.02490	1	9.517	0.43385	−12	0.02762	2	9.539	13
14	0.45731	−16	0.02494	2	9.518	0.43346	−16	0.02766	2	9.539	14
15	0.45691	−21	0.02499	2	9.518	0.43307	−20	0.02771	3	9.539	15
16	0.45650	−25	0.02503	2	9.518	0.43268	−23	0.02776	3	9.540	16
17	0.45610	−29	0.02508	3	9.519	0.43229	−27	0.02780	4	9.540	17
18	0.45569	−33	0.02512	3	9.519	0.43190	−31	0.02785	4	9.540	18
19	0.45529	−37	0.02516	4	9.520	0.43151	−35	0.02790	5	9.541	19
20	0.45488	**−40**	0.02521	**4**	9.520	0.43113	**−39**	0.02794	**5**	9.541	20
21	0.45448	− 4	0.02525	0	9.520	0.43074	− 4	0.02799	1	9.541	21
22	0.45407	− 8	0.02530	1	9.521	0.43035	− 8	0.02804	1	9.542	22
23	0.45367	−12	0.02534	1	9.521	0.42996	−12	0.02808	2	9.542	23
24	0.45327	−16	0.02539	2	9.521	0.42958	−16	0.02813	2	9.542	24
25	0.45286	−20	0.02543	2	9.522	0.42919	−20	0.02818	3	9.543	25
26	0.45246	−24	0.02547	2	9.522	0.42880	−23	0.02822	3	9.543	26
27	0.45206	−28	0.02552	3	9.522	0.42842	−27	0.02827	4	9.543	27
28	0.45165	−32	0.02556	3	9.523	0.42803	−31	0.02832	4	9.544	28
29	0.45125	−36	0.02561	4	9.523	0.42765	−35	0.02837	5	9.544	29
30	0.45085	**−40**	0.02565	**4**	9.523	0.42726	**−38**	0.02841	**5**	9.544	30
31	0.45045	− 4	0.02570	0	9.524	0.42688	− 4	0.02846	1	9.545	31
32	0.45005	− 8	0.02574	1	9.524	0.42649	− 8	0.02851	1	9.545	32
33	0.44965	−12	0.02579	1	9.525	0.42611	−11	0.02855	2	9.545	33
34	0.44925	−16	0.02583	2	9.525	0.42572	−15	0.02860	**2**	9.546	34
35	0.44885	−20	0.02588	2	9.525	0.42534	−19	0.02865	3	9.546	35
36	0.44845	−24	0.02592	2	9.526	0.42496	−23	0.02870	3	9.546	36
37	0.44805	−28	0.02597	3	9.526	0.42457	−27	0.02874	4	9.547	37
38	0.44765	−32	0.02601	3	9.526	0.42419	−30	0.02879	4	9.547	38
39	0.44725	−36	0.02606	4	9.527	0.42381	−34	0.02884	5	9.547	39
40	0.44685	**−40**	0.02610	**5**	9.527	0.42342	**−38**	0.02889	**5**	9.548	40
41	0.44645	− 4	0.02615	1	9.527	0.42304	− 4	0.02893	1	9.548	41
42	0.44605	− 8	0.02619	1	9.528	0.42266	− 8	0.02898	1	9.548	42
43	0.44566	−12	0.02624	2	9.528	0.42228	−11	0.02903	2	9.549	43
44	0.44526	−16	0.02628	2	9.528	0.42190	−15	0.02908	2	9.549	44
45	0.44486	−20	0.02633	3	9.529	0.42151	−19	0.02913	3	9.549	45
46	0.44446	−24	0.02637	3	9.529	0.42113	−23	0.02917	3	9.550	46
47	0.44407	−28	0.02642	4	9.530	0.42075	−27	0.02922	4	9.550	47
48	0.44367	−32	0.02647	4	9.530	0.42037	−30	0.02927	4	9.550	48
49	0.44327	−36	0.02651	5	9.530	0.41999	−34	0.02932	5	9.551	49
50	0.44288	**−39**	0.02656	**5**	9.531	0.41961	**−38**	0.02937	**5**	9.551	50
51	0.44248	− 4	0.02660	1	9.531	0.41923	− 4	0.02941	1	9.551	51
52	0.44209	− 8	0.02665	1	9.531	0.41885	− 8	0.02946	1	9.552	52
53	0.44169	−12	0.02669	2	9.532	0.41847	−11	0.02951	2	9.552	53
54	0.44130	−16	0.02674	2	9.532	0.41809	−15	0.02956	2	9.552	54
55	0.44090	−20	0.02678	3	9.532	0.41771	−19	0.02961	3	9.553	55
56	0.44051	−23	0.02683	3	9.533	0.41733	−23	0.02965	3	9.553	56
57	0.44011	−27	0.02688	4	9.533	0.41696	−27	0.02970	4	9.553	57
58	0.43972	−31	0.02692	4	9.533	0.41658	−30	0.02975	4	9.554	58
59	0.43933	−35	0.02697	5	9.534	0.41620	−34	0.02980	5	9.554	59
60	0.43893		0.02701		9.534	0.41582		0.02985		9.554	60

$K_1 + K_2 = K_3 \longrightarrow K \longrightarrow A_2,\ Z_2$

第 6 表 III

高度及方位角計算表 K 表

KJ符號 ltdtガ { h……0°−90°−180°−270°−360°
同名ナルトキ + ～ ～ +
異名ナルトキ ～ + + ～

′	21°					22°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	0.41582	−38	0.02985	5	9.554	0.39359	−36	0.03283	5	9.574	0
1	0.41545	− 4	0.02990	1	9.555	0.39323	− 4	0.03289	1	9.574	1
2	0.41507	− 8	0.02995	1	9.555	0.39286	− 7	0.03294	1	9.574	2
3	0.41469	−11	0.02999	2	9.555	0.39250	−11	0.03299	2	9.575	3
4	0.41431	−15	0.03004	2	9.556	0.39214	−14	0.03304	2	9.575	4
5	0.41394	−19	0.03009	3	9.556	0.39177	−18	0.03309	3	9.575	5
6	0.41356	−23	0.03014	3	9.556	0.39141	−22	0.03314	3	9.575	6
7	0.41319	−27	0.03019	4	9.557	0.39105	−25	0.03319	4	9.576	7
8	0.41281	−30	0.03024	4	9.557	0.39069	−29	0.03324	4	9.576	8
9	0.41243	−34	0.03029	5	9.557	0.39033	−32	0.03330	5	9.576	9
10	0.41206	−37	0.03034	5	9.558	0.38996	−36	0.03335	5	9.577	10
11	0.41168	− 4	0.03038	1	9.558	0.38960	− 4	0.03340	1	9.577	11
12	0.41131	− 7	0.03043	1	9.558	0.38924	− 7	0.03345	1	9.577	12
13	0.41093	−11	0.03048	2	9.559	0.38888	−11	0.03350	2	9.578	13
14	0.41056	−15	0.03053	2	9.559	0.38852	−14	0.03355	2	9.578	14
15	0.41019	−19	0.03058	3	9.559	0.38816	−18	0.03360	3	9.578	15
16	0.40981	−22	0.03063	3	9.560	0.38780	−22	0.03366	3	9.579	16
17	0.40944	−26	0.03068	4	9.560	0.38744	−25	0.03371	4	9.579	17
18	0.40906	−30	0.03073	4	9.560	0.38708	−29	0.03376	4	9.579	18
19	0.40869	−33	0.03078	5	9.561	0.38672	−32	0.03381	5	9.579	19
20	0.40832	−37	0.03083	5	9.561	0.38636	−36	0.03386	5	9.580	20
21	0.40795	− 4	0.03088	1	9.561	0.38600	− 4	0.03392	1	9.580	21
22	0.40757	− 7	0.03093	1	9.562	0.38564	− 7	0.03397	1	9.580	22
23	0.40720	−11	0.03097	2	9.562	0.38528	−11	0.03402	2	9.581	23
24	0.40683	−15	0.03102	2	9.562	0.38492	−14	0.03407	2	9.581	24
25	0.40646	−19	0.03107	3	9.562	0.38456	−18	0.03412	3	9.581	25
26	0.40609	−22	0.03112	3	9.563	0.38421	−22	0.03418	3	9.582	26
27	0.40571	−26	0.03117	4	9.563	0.38385	−25	0.03423	4	9.582	27
28	0.40534	−30	0.03122	4	9.563	0.38349	−29	0.03428	4	9.582	28
29	0.40497	−33	0.03127	5	9.564	0.38313	−32	0.03433	5	9.583	29
30	0.40460	−37	0.03132	5	9.564	0.38278	−36	0.03438	5	9.583	30
31	0.40423	− 4	0.03137	1	9.564	0.38242	− 4	0.03444	1	9.583	31
32	0.40386	− 7	0.03142	1	9.565	0.38206	− 7	0.03449	1	9.583	32
33	0.40349	−11	0.03147	2	9.565	0.38170	−11	0.03454	2	9.584	33
34	0.40312	−15	0.03152	2	9.565	0.38135	−14	0.03459	2	9.584	34
35	0.40275	−19	0.03157	3	9.566	0.38099	−18	0.03465	3	9.584	35
36	0.40238	−22	0.03162	3	9.566	0.38064	−22	0.03470	3	9.585	36
37	0.40201	−26	0.03167	4	9.566	0.38028	−25	0.03475	4	9.585	37
38	0.40165	−30	0.03172	4	9.567	0.37992	−29	0.03480	4	9.585	38
39	0.40128	−33	0.03177	5	9.567	0.37957	−32	0.03486	5	9.586	39
40	0.40091	−37	0.03182	5	9.567	0.37921	−35	0.03491	5	9.586	40
41	0.40054	− 4	0.03187	1	9.568	0.37886	− 4	0.03496	1	9.586	41
42	0.40017	− 7	0.03192	1	9.568	0.37850	− 7	0.03502	1	9.586	42
43	0.39981	−11	0.03197	2	9.568	0.37815	−11	0.03507	2	9.587	43
44	0.39944	−15	0.03202	2	9.569	0.37779	−14	0.03512	2	9.587	44
45	0.39907	−19	0.03207	3	9.569	0.37744	−18	0.03517	3	9.587	45
46	0.39870	−22	0.03212	3	9.569	0.37708	−21	0.03523	3	9.588	46
47	0.39834	−26	0.03217	4	9.569	0.37673	−25	0.03528	4	9.588	47
48	0.39797	−30	0.03222	4	9.570	0.37638	−28	0.03533	4	9.588	48
49	0.39760	−33	0.03228	5	9.570	0.37602	−32	0.03539	5	9.589	49
50	0.39724	−36	0.03233	5	9.570	0.37567	−35	0.03544	5	9.589	50
51	0.39687	− 4	0.03238	1	9.571	0.37532	− 4	0.03549	1	9.589	51
52	0.39651	− 7	0.03243	1	9.571	0.37496	− 7	0.03555	1	9.589	52
53	0.39614	−11	0.03248	2	9.571	0.37461	−11	0.03560	2	9.590	53
54	0.39578	−14	0.03253	2	9.572	0.37426	−14	0.03565	2	9.590	54
55	0.39541	−18	0.03258	3	9.572	0.37391	−18	0.03571	3	9.590	55
56	0.39505	−22	0.03263	3	9.572	0.37355	−21	0.03576	3	9.591	56
57	0.39468	−25	0.03268	4	9.573	0.37320	−25	0.03581	4	9.591	57
58	0.39432	−29	0.03273	4	9.573	0.37285	−28	0.03587	4	9.591	58
59	0.39395	−32	0.03278	5	9.573	0.37250	−32	0.03592	5	9.592	59
60	0.39359		0.03283		9.574	0.37215		0.03597		9.592	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2,\ Z_2$

第 6 表 III

高度及方位角計算表 K 表

KJ符號 ltdtガ { h……0°−90°−180°−270°−360°
同名ナルトキ + ～ ～ +
異名ナルトキ ～ + + ～

′	23°					24°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	0.37215	−35	0.03597	5	9.592	0.35142	−34	0.03927	6	9.609	0
1	0.37180	− 4	0.03603	1	9.592	0.35108	− 3	0.03933	1	9.610	1
2	0.37145	− 7	0.03608	1	9.592	0.35074	− 7	0.03938	1	9.610	2
3	0.37110	−11	0.03613	2	9.593	0.35040	−10	0.03944	2	9.610	3
4	0.37074	−14	0.03619	2	9.593	0.35006	−14	0.03950	2	9.610	4
5	0.37039	−18	0.03624	3	9.593	0.34972	−17	0.03955	3	9.611	5
6	0.37004	−21	0.03630	3	9.594	0.34938	−20	0.03961	4	9.611	6
7	0.36969	−25	0.03635	4	9.594	0.34904	−24	0.03966	4	9.611	7
8	0.36934	−28	0.03640	4	9.594	0.34870	−27	0.03972	5	9.612	8
9	0.36899	−32	0.03646	5	9.595	0.34836	−31	0.03978	5	9.612	9
10	0.36865	−35	0.03651	5	9.595	0.34803	−34	0.03983	6	9.612	10
11	0.36830	− 4	0.03657	1	9.595	0.34769	− 3	0.03989	1	9.612	11
12	0.36795	− 7	0.03662	1	9.595	0.34735	− 7	0.03995	1	9.613	12
13	0.36760	−11	0.03667	2	9.596	0.34701	−10	0.04000	2	9.613	13
14	0.36725	−14	0.03673	2	9.596	0.34667	−14	0.04006	2	9.613	14
15	0.36690	−18	0.03678	3	9.596	0.34634	−17	0.04012	3	9.614	15
16	0.36655	−21	0.03684	3	9.597	0.34600	−20	0.04018	4	9.614	16
17	0.36621	−25	0.03689	4	9.597	0.34566	−24	0.04023	4	9.614	17
18	0.36586	−28	0.03695	4	9.597	0.34533	−27	0.04029	5	9.614	18
19	0.36551	−32	0.03700	5	9.597	0.34499	−31	0.04035	5	9.615	19
20	0.36516	−35	0.03706	5	9.598	0.34465	−34	0.04040	6	9.615	20
21	0.36481	− 4	0.03711	1	9.598	0.34432	− 3	0.04046	1	9.615	21
22	0.36447	− 7	0.03716	1	9.598	0.34398	− 7	0.04052	1	9.616	22
23	0.36412	−11	0.03722	2	9.599	0.34364	−10	0.04058	2	9.616	23
24	0.36377	−14	0.03727	2	9.599	0.34331	−14	0.04063	2	9.616	24
25	0.36343	−18	0.03733	3	9.599	0.34297	−17	0.04069	3	9.616	25
26	0.36308	−21	0.03738	3	9.600	0.34264	−20	0.04075	4	9.617	26
27	0.36274	−25	0.03744	4	9.600	0.34230	−24	0.04080	4	9.617	27
28	0.36239	−28	0.03749	4	9.600	0.34197	−27	0.04086	5	9.617	28
29	0.36204	−32	0.03755	5	9.600	0.34163	−31	0.04092	5	9.617	29
30	0.36170	−34	0.03760	6	9.601	0.34130	−33	0.04098	6	9.618	30
31	0.36135	− 3	0.03766	1	9.601	0.34096	− 3	0.04103	1	9.618	31
32	0.36101	− 7	0.03771	1	9.601	0.34063	− 7	0.04109	1	9.618	32
33	0.36066	−10	0.03777	2	9.602	0.34029	−10	0.04115	2	9.619	33
34	0.36032	−14	0.03782	2	9.602	0.33996	−13	0.04121	2	9.619	34
35	0.35997	−17	0.03788	3	9.602	0.33962	−17	0.04127	3	9.619	35
36	0.35963	−20	0.03793	4	9.602	0.33929	−20	0.04132	4	9.619	36
37	0.35928	−24	0.03799	4	9.603	0.33896	−23	0.04138	4	9.620	37
38	0.35894	−27	0.03804	5	9.603	0.33862	−26	0.04144	5	9.620	38
39	0.35860	−31	0.03810	5	9.603	0.33829	−30	0.04150	5	9.620	39
40	0.35825	−34	0.03815	6	9.604	0.33796	−33	0.04156	6	9.620	40
41	0.35791	− 3	0.03821	1	9.604	0.33762	− 3	0.04161	1	9.621	41
42	0.35757	− 7	0.03826	1	9.604	0.33729	− 7	0.04167	1	9.621	42
43	0.35722	−10	0.03832	2	9.604	0.33696	−10	0.04173	2	9.621	43
44	0.35688	−14	0.03838	2	9.605	0.33663	−13	0.04179	2	9.622	44
45	0.35654	−17	0.03843	3	9.605	0.33629	−17	0.04185	3	9.622	45
46	0.35619	−20	0.03849	4	9.605	0.33596	−20	0.04190	4	9.622	46
47	0.35585	−24	0.03854	4	9.606	0.33563	−23	0.04196	4	9.622	47
48	0.35551	−27	0.03860	5	9.606	0.33530	−26	0.04202	5	9.623	48
49	0.35517	−31	0.03865	5	9.606	0.33497	−30	0.04208	5	9.623	49
50	0.35483	−34	0.03871	6	9.606	0.33463	−33	0.04214	6	9.623	50
51	0.35448	− 3	0.03877	1	9.607	0.33430	− 3	0.04220	1	9.624	51
52	0.35414	− 7	0.03882	1	9.607	0.33397	− 7	0.04225	1	9.624	52
53	0.35380	−10	0.03888	2	9.607	0.33364	−10	0.04231	2	9.624	53
54	0.35346	−14	0.03893	2	9.608	0.33331	−13	0.04237	2	9.624	54
55	0.35312	−17	0.03899	3	9.608	0.33298	−17	0.04243	3	9.625	55
56	0.35278	−20	0.03905	4	9.608	0.33265	−20	0.04249	4	9.625	56
57	0.35244	−24	0.03910	4	9.608	0.33232	−23	0.04255	4	9.625	57
58	0.35210	−27	0.03916	5	9.609	0.33199	−26	0.04261	5	9.625	58
59	0.35176	−31	0.03921	5	9.609	0.33166	−30	0.04267	5	9.626	59
60	0.35142		0.03927		9.609	0.33133		0.04272		9.626	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2,\ Z_2$

高度及方位角計算表　*K* 表

K ノ符號 l ト d トガ
h	0°—90°	—180°	—270°	—360°
同名ナルトキ	+	～	～	+
異名ナルトキ	～	+	+	～

′	25°					26°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	0.33133	**−33**	0.04272	**6**	9.626	0.31182	**−32**	0.04634	**6**	9.642	0
1	0.33100	− 3	0.04278	1	9.626	0.31150	− 3	0.04640	1	9.642	1
2	0.33067	− 7	0.04284	1	9.626	0.31118	− 6	0.04646	1	9.642	2
3	0.33034	−10	0.04290	2	9.627	0.31086	−10	0.04652	2	9.643	3
4	0.33001	−13	0.04296	2	9.627	0.31054	−13	0.04659	2	9.643	4
5	0.32968	−17	0.04302	3	9.627	0.31022	−16	0.04665	3	9.643	5
6	0.32935	−20	0.04308	4	9.628	0.30990	−19	0.04671	4	9.643	6
7	0.32902	−23	0.04314	4	9.628	0.30958	−22	0.04677	4	9.644	7
8	0.32869	−26	0.04320	5	9.628	0.30926	−26	0.04683	5	9.644	8
9	0.32837	−30	0.04326	5	9.628	0.30894	−29	0.04690	5	9.644	9
10	0.32804	**−33**	0.04332	**6**	9.629	0.30862	**−32**	0.04696	**6**	9.644	10
11	0.32771	− 3	0.04337	1	9.629	0.30830	− 3	0.04702	1	9.645	11
12	0.32738	− 7	0.04343	1	9.629	0.30798	− 6	0.04708	1	9.645	12
13	0.32705	−10	0.04349	2	9.629	0.30766	−10	0.04714	2	9.645	13
14	0.32673	−13	0.04355	2	9.630	0.30734	−13	0.04721	2	9.645	14
15	0.32640	−17	0.04361	3	9.630	0.30702	−16	0.04727	3	9.646	15
16	0.32607	−20	0.04367	4	9.630	0.30671	−19	0.04733	4	9.646	16
17	0.32574	−23	0.04373	4	9.631	0.30639	−22	0.04739	4	9.646	17
18	0.32542	−26	0.04379	5	9.631	0.30607	−26	0.04746	5	9.646	18
19	0.32509	−30	0.04385	5	9.631	0.30575	−29	0.04752	5	9.647	19
20	0.32476	**−33**	0.04391	**6**	9.631	0.30543	**−32**	0.04758	**6**	9.647	20
21	0.32444	− 3	0.04397	1	9.632	0.30512	− 3	0.04764	1	9.647	21
22	0.32411	− 7	0.04403	1	9.632	0.30480	− 6	0.04771	1	9.647	22
23	0.32378	−10	0.04409	2	9.632	0.30448	−10	0.04777	2	9.648	23
24	0.32346	−13	0.04415	2	9.632	0.30416	−13	0.04783	2	9.648	24
25	0.32313	−17	0.04421	3	9.633	0.30385	−16	0.04789	3	9.648	25
26	0.32281	−20	0.04427	4	9.633	0.30353	−19	0.04796	4	9.649	26
27	0.32248	−23	0.04433	4	9.633	0.30321	−22	0.04802	4	9.649	27
28	0.32215	−26	0.04439	5	9.633	0.30290	−26	0.04808	5	9.649	28
29	0.32183	−30	0.04445	5	9.634	0.30258	−29	0.04815	5	9.649	29
30	0.32150	**−32**	0.04451	**6**	9.634	0.30226	**−32**	0.04821	**6**	9.650	30
31	0.32118	− 3	0.04457	1	9.634	0.30195	− 3	0.04827	1	9.650	31
32	0.32085	− 6	0.04463	1	9.635	0.30163	− 6	0.04833	1	9.650	32
33	0.32053	−10	0.c4469	2	9.635	0.30132	−10	0.04840	2	9.650	33
34	0.32020	−13	0.04475	2	9.635	0.30100	−13	0.04846	2	9.651	34
35	0.31988	−16	0.04481	3	9.635	0.30068	−16	0.04852	3	9.651	35
36	0.31956	−19	0.04487	4	9.636	0.30037	−19	0.04859	4	9.651	36
37	0.31923	−22	0.04493	4	9.636	0.30005	−22	0.04865	4	9.651	37
38	0.31891	−26	0.04500	5	9.636	0.29974	−26	0.04871	5	9.652	38
39	0.31858	−29	0.04506	5	9.636	0.29942	−29	0.04878	5	9.652	39
40	0.31826	**−32**	0.04512	**6**	9.637	0.29911	**−31**	0.04884	**6**	9.652	40
41	0.31794	− 3	0.04518	1	9.637	0.29879	− 3	0.04890	1	9.652	41
42	0.31761	− 6	0.04524	1	9.637	0.29848	− 6	0.04897	1	9.653	42
43	0.31729	−10	0.04530	2	9.637	0.29816	− 9	0.04903	2	9.653	43
44	0.31697	−13	0.04536	2	9.638	0.29785	−12	0.04910	2	9.653	44
45	0.31664	−16	0.04542	3	9.638	0.29753	−16	0.04916	3	9.653	45
46	0.31632	−19	0.04548	4	9.638	0.29722	−19	0.04922	4	9.654	46
47	0.31600	−22	0.04554	4	9.638	0.29691	−22	0.04929	4	9.654	47
48	0.31568	−26	0.04560	5	9.639	0.29659	−25	0.04935	5	9.654	48
49	0.31535	−29	0.04566	5	9.639	0.29628	−28	0.04941	5	9.654	49
50	0.31503	**−32**	0.04573	**6**	9.639	0.29596	**−31**	0.04948	**6**	9.655	50
51	0.31471	− 3	0.04579	1	9.640	0.29565	− 3	0.04954	1	9.655	51
52	0.31439	− 6	0.04585	1	9.640	0.29534	− 6	0.04961	1	9.655	52
53	0.31407	−10	0.04591	2	9.640	0.29502	− 9	0.04967	2	9.655	53
54	0.31374	−13	0.04597	2	9.640	0.29471	−12	0.04973	2	9.656	54
55	0.31342	−16	0.04603	3	9.641	0.29440	−16	0.04980	3	9.656	55
56	0.31310	−19	0.04609	4	9.641	0.29408	−19	0.04986	4	9.656	56
57	0.31278	−22	0.04616	4	9.641	0.29377	−22	0.04993	4	9.656	57
58	0.31246	−26	0.04622	5	9.641	0.29346	−25	0.04999	5	9.657	58
59	0.31214	−29	0.04628	5	9.642	0.29315	−28	0.05005	5	9.657	59
60	0.31182		0.04634		9.642	0.29283		0.05012		9.657	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表　*K* 表

K ノ符號 l ト d トガ
h	0°—90°	—180°	—270°	—360°
同名ナルトキ	+	～	～	+
異名ナルトキ	～	+	+	～

′	27°					28°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	0.29283	**−31**	0.05012	**6**	9.657	0.27433	**−30**	0.05407	**7**	9.672	0
1	0.29252	− 3	0.05018	1	9.657	0.27402	− 3	0.05413	1	9.672	1
2	0.29221	− 6	0.05025	1	9.658	0.27372	− 6	0.05420	1	9.672	2
3	0.29190	− 9	0.05031	2	9.658	0.27341	− 9	0.05427	2	9.672	3
4	0.29159	−12	0.05038	2	9.658	0.27311	−12	0.05433	3	9.673	4
5	0.29127	−16	0.05044	3	9.658	0.27280	−15	0.05440	4	9.673	5
6	0.29096	−19	0.05051	4	9.659	0.27250	−18	0.05447	4	9.673	6
7	0.29065	−22	0.05057	4	9.659	0.27220	−21	0.05454	5	9.673	7
8	0.29034	−25	0.05064	5	9.659	0.27189	−24	0.05460	6	9.674	8
9	0.29003	−28	0.05070	5	9.659	0.27159	−27	0.05467	6	9.674	9
10	0.28972	**−31**	0.05077	**7**	9.660	0.27128	**−30**	0.05474	**7**	9.674	10
11	0.28941	− 3	0.05083	1	9.660	0.27098	− 3	0.05481	1	9.674	11
12	0.28910	− 6	0.05089	1	9.660	0.27068	− 6	0.05487	1	9.674	12
13	0.28879	− 9	0.05096	2	9.660	0.27037	− 9	0.05494	2.	9.675	13
14	0.28847	−12	0.05102	3	9.661	0.27007	−12	0.05501	3	9.675	14
15	0.28816	−16	0.05109	4	9.661	0.26977	−15	0.05508	4	9.675	15
16	0.28785	−19	0.05115	4	9.661	0.26946	−18	0.05515	4	9.675	16
17	0.28754	−22	0.05122	5	9.661	0.26916	−21	0.05521	5	9.676	17
18	0.28723	−25	0.05129	6	9.661	0.26886	−24	0.05528	6	9.676	18
19	0.28692	−28	0.05135	6	9.662	0.26856	−27	0.05535	6	9.676	19
20	0.28661	**−31**	0.05142	**7**	9.662	0.26825	**−30**	0.05542	**7**	9.676	20
21	0.28630	− 3	0.05148	1	9.662	0.26795	− 3	0.05549	1	9.677	21
22	0.28599	− 6	0.05155	1	9.662	0.26765	− 6	0.05555	1	9.677	22
23	0.28569	− 9	0.05161	2	9.663	0.26735	− 9	0.05562	2	9.677	23
24	0.28538	−12	0.05168	3	9.663	0.26705	−12	0.05569	3	9.677	24
25	0.28507	−16	0.05174	4	9.663	0.26674	−15	0.05576	4	9.677	25
26	0.28476	−19	0.05181	4	9.663	0.26644	−18	0.05583	4	9.678	26
27	0.28445	−22	0.05187	5	9.664	0.26614	−21	0.05590	5	9.678	27
28	0.28414	−25	0.05194	6	9.664	0.26584	−24	0.05596	6	9.678	28
29	0.28383	−28	0.05201	6	9.664	0.26554	−27	0.05603	6	9.678	29
30	0.28352	**−31**	0.05207	**7**	9.664	0.26524	**−30**	0.05610	**7**	9.679	30
31	0.28321	− 3	0.05214	1	9.665	0.26493	− 3	0.05617	1	9.679	31
32	0.28291	− 6	0.05220	1	9.665	0.26463	− 6	0.05624	1	9.679	32
33	0.28260	− 9	0.05227	2	9.665	0.26433	− 9	0.05631	2	9.679	33
34	0.28229	−12	0.05233	3	9.665	0.26403	−12	0.05638	3	9.680	34
35	0.28198	−16	0.05240	4	9.666	0.26373	−15	0.05645	4	9.680	35
36	0.28167	−19	0.05247	4	9.666	0.26343	−18	0.05651	4	9.680	36
37	0.28137	−22	0.05253	5	9.666	0.26313	−21	0.05658	5	9.680	37
38	0.28106	−25	0.05260	6	9.666	0.26283	−24	0.05665	6	9.681	38
39	0.28075	−28	0.05266	6	9.667	0.26253	−27	0.05672	6	9.681	39
40	0.28045	**−31**	0.05273	**7**	9.667	0.26223	**−30**	0.05679	**7**	9.681	40
41	0.28014	− 3	0.05280	1	9.667	0.26193	− 3	0.05686	1	9.681	41
42	0.27983	− 6	0.05286	1	9.667	0.26163	− 6	0.05693	1	9.681	42
43	0.27952	− 9	0.05293	2	9.668	0.26133	− 9	0.05700	2	9.682	43
44	0.27922	−12	0.05300	3	9.668	0.26103	−12	0.05707	3	9.682	44
45	0.27891	−16	0.05306	4	9.668	0.26073	−15	0.05714	4	9.682	45
46	0.27860	−19	0.05313	4	9.668	0.26043	−18	0.05721	4	9.682	46
47	0.27830	−22	0.05320	5	9.669	0.26013	−21	0.05727	5	9.683	47
48	0.27799	−25	0.05326	6	9.669	0.25983	−24	0.05734	6	9.683	48
49	0.27769	−28	0.05333	6	9.669	0.25953	−27	0.05741	6	9.683	49
50	0.27738	**−31**	0.05340	**7**	9.669	0.25923	**−30**	0.05748	**7**	9.683	50
51	0.27707	− 3	0.05346	1	9.669	0.25893	− 3	0.05755	1	9.684	51
52	0.27677	− 6	0.05353	1	9.670	0.25863	− 6	0.05762	1	9.684	52
53	0.27646	− 9	0.05360	2	9.670	0.25834	− 9	0.05769	2	9.684	53
54	0.27616	−12	0.05366	3	9.670	0.25804	−12	0.05776	3	9.684	54
55	0.27585	−16	0.05373	4	9.670	0.25774	−15	0.05783	4	9.684	55
56	0.27555	−19	0.05380	4	9.671	0.25744	−18	0.05790	4	9.685	56
57	0.27524	−22	0.05386	5	9.671	0.25714	−21	0.05797	5	9.685	57
58	0.27494	−25	0.05393	6	9.671	0.25684	−24	0.05804	6	9.685	58
59	0.27463	−28	0.05400	6	9.671	0.25655	−27	0.05811	6	9.685	59
60	0.27433		0.05407		9.672	0.25625		0.05818		9.686	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表 *K* 表

KノJ符號 lトdトガ	h……0°	−90°	−180°	−270°	−360°
同名ナルトキ	+	~	~	+	
異名ナルトキ	~	+	+	~	

′	29° K_3 L. Cot.	P.P.	29° A_2 L. Sec.	P.P.	29° Z_2 L. Sin.	30° K_3 L. Cot.	P.P.	30° A_2 L. Sec.	P.P.	30° Z_2 L. Sin.	′
0	0.25625	−30	0.05818	7	9.686	0.23856	−29	0.06247	7	9.699	0
1	0.25595	− 3	0.05825	1	9.686	0.23827	− 3	0.06254	1	9.699	1
2	0.25565	− 6	0.05832	1	9.686	0.23798	− 6	0.06262	1	9.699	2
3	0.25535	− 9	0.05839	2	9.686	0.23769	− 9	0.06269	2	9.700	3
4	0.25506	−12	0.05846	3	9.686	0.23739	−12	0.06276	3	9.700	4
5	0.25476	−15	0.05853	4	9.687	0.23710	−15	0.06283	4	9.700	5
6	0.25446	−18	0.05860	4	9.687	0.23681	−17	0.06291	4	9.700	6
7	0.25417	−21	0.05867	5	9.687	0.23652	−20	0.06298	5	9.700	7
8	0.25387	−24	0.05874	6	9.687	0.23623	−23	0.06305	6	9.701	8
9	0.25357	−27	0.05881	6	9.688	0.23594	−26	0.06313	6	9.701	9
10	0.25327	−30	0.05888	7	9.688	0.23565	−29	0.06320	7	9.701	10
11	0.25298	− 3	0.05895	1	9.688	0.23536	− 3	0.06327	1	9.701	11
12	0.25268	− 6	0.05902	1	9.688	0.23507	− 6	0.06335	1	9.702	12
13	0.25238	− 9	0.05910	2	9.689	0.23478	− 9	0.06342	2	9.702	13
14	0.25209	−12	0.05917	3	9.689	0.23449	−12	0.06350	3	9.702	14
15	0.25179	−15	0.05924	4	9.689	0.23420	−15	0.06357	4	9.702	15
16	0.25149	−18	0.05931	4	9.689	0.23391	−17	0.06364	4	9.702	16
17	0.25120	−21	0.05938	5	9.689	0.23361	−20	0.06372	5	9.703	17
18	0.25090	−24	0.05945	6	9.690	0.23332	−23	0.06379	6	9.703	18
19	0.25061	−27	0.05952	6	9.690	0.23303	−26	0.06386	6	9.703	19
20	0.25031	−30	0.05959	7	9.690	0.23275	−29	0.06394	7	9.703	20
21	0.25002	− 3	0.05966	1	9.690	0.23246	− 3	0.06401	1	9.704	21
22	0.24972	− 6	0.05973	1	9.691	0.23217	− 6	0.06409	1	9.704	22
23	0.24942	− 9	0.05980	2	9.691	0.23188	− 9	0.06416	2	9.704	23
24	0.24913	−12	0.05988	3	9.691	0.23159	−12	0.06423	3	9.704	24
25	0.24883	−15	0.05995	4	9.691	0.23130	−15	0.06431	4	9.704	25
26	0.24854	−18	0.06002	4	9.691	0.23101	−17	0.06438	4	9.705	26
27	0.24824	−21	0.06009	5	9.692	0.23072	−20	0.06446	5	9.705	27
28	0.24795	−24	0.06016	6	9.692	0.23043	−23	0.06453	6	9.705	28
29	0.24765	−27	0.06023	6	9.692	0.23014	−26	0.06461	6	9.705	29
30	0.24736	−29	0.06030	7	9.692	0.22985	−29	0.06468	7	9.705	30
31	0.24706	− 3	0.06037	1	9.693	0.22956	− 3	0.06475	1	9.706	31
32	0.24677	− 6	0.06045	1	9.693	0.22927	− 6	0.06483	1	9.706	32
33	0.24647	− 9	0.06052	2	9.693	0.22899	− 9	0.06490	2	9.706	33
34	0.24618	−12	0.06059	3	9.693	0.22870	−12	0.06498	3	9.706	34
35	0.24589	−15	0.06066	4	9.693	0.22841	−15	0.06505	4	9.707	35
36	0.24559	−17	0.06073	4	9.694	0.22812	−17	0.06513	4	9.707	36
37	0.24530	−20	0.06080	5	9.694	0.22783	−20	0.06520	5	9.707	37
38	0.24500	−23	0.06088	6	9.694	0.22754	−23	0.06528	6	9.707	38
39	0.24471	−26	0.06095	6	9.694	0.22726	−26	0.06535	6	9.707	39
40	0.24442	−29	0.06102	7	9.695	0.22697	−29	0.06543	8	9.708	40
41	0.24412	− 3	0.06109	1	9.695	0.22668	− 3	0.06550	1	9.708	41
42	0.24383	− 6	0.06116	1	9.695	0.22639	− 6	0.06558	2	9.708	42
43	0.24353	− 9	0.06124	2	9.695	0.22610	− 9	0.06565	2	9.708	43
44	0.24324	−12	0.06131	3	9.695	0.22582	−12	0.06573	3	9.708	44
45	0.24295	−15	0.06138	4	9.696	0.22553	−15	0.06580	4	9.709	45
46	0.24265	−17	0.06145	4	9.696	0.22524	−17	0.06588	5	9.709	46
47	0.24236	−20	0.06153	5	9.696	0.22495	−20	0.06595	6	9.709	47
48	0.24207	−23	0.06160	6	9.696	0.22467	−23	0.06603	6	9.709	48
49	0.24178	−26	0.06167	6	9.697	0.22438	−26	0.06610	7	9.710	49
50	0.24148	−29	0.06174	7	9.697	0.22409	−29	0.06618	8	9.710	50
51	0.24119	− 3	0.06181	1	9.697	0.22381	− 3	0.06625	1	9.710	51
52	0.24090	− 6	0.06189	1	9.697	0.22352	− 6	0.06633	2	9.710	52
53	0.24061	− 9	0.06196	2	9.697	0.22323	− 9	0.06640	2	9.710	53
54	0.24031	−12	0.06203	3	9.698	0.22294	−12	0.06648	3	9.711	54
55	0.24002	−15	0.06211	4	9.698	0.22266	−15	0.06656	4	9.711	55
56	0.23973	−17	0.06218	4	9.698	0.22237	−17	0.06663	5	9.711	56
57	0.23944	−20	0.06225	5	9.698	0.22209	−20	0.06671	6	9.711	57
58	0.23914	−23	0.06232	6	9.699	0.22180	−23	0.06678	6	9.711	58
59	0.23885	−26	0.06240	6	9.699	0.22151	−26	0.06686	7	9.712	59
60	0.23856		0.06247		9.699	0.22123		0.06693		9.712	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表 *K* 表

KノJ符號 lトdトガ	h……0°	−90°	−180°	−270°	−360°
同名ナルトキ	+	~	~	+	
異名ナルトキ	~	+	+	~	

′	31° K_3 L. Cot.	P.P.	31° A_2 L. Sec.	P.P.	31° Z_2 L. Sin.	32° K_3 L. Cot.	P.P.	32° A_2 L. Sec.	P.P.	32° Z_2 L. Sin.	′
0	0.22123	−29	0.06693	8	9.712	0.20421	−28	0.07158	8	9.724	0
1	0.22094	− 3	0.06701	1	9.712	0.20393	− 3	0.07166	1	9.724	1
2	0.22065	− 6	0.06709	2	9.712	0.20365	− 6	0.07174	2	9.725	2
3	0.22037	− 9	0.06716	2	9.712	0.20337	− 8	0.07182	2	9.725	3
4	0.22008	−12	0.06724	3	9.713	0.20309	−11	0.07190	3	9.725	4
5	0.21980	−15	0.06731	4	9.713	0.20281	−14	0.07197	4	9.725	5
6	0.21951	−17	0.06739	5	9.713	0.20253	−17	0.07205	5	9.725	6
7	0.21923	−20	0.06747	6	9.713	0.20224	−20	0.07213	6	9.726	7
8	0.21894	−23	0.06754	6	9.714	0.20196	−22	0.07221	6	9.726	8
9	0.21865	−26	0.06762	7	9.714	0.20168	−25	0.07229	7	9.726	9
10	0.21837	−28	0.06770	8	9.714	0.20140	−28	0.07237	8	9.726	10
11	0.21808	− 3	0.06777	1	9.714	0.20112	− 3	0.07245	1	9.726	11
12	0.21780	− 6	0.06785	2	9.714	0.20084	− 6	0.07253	2	9.727	12
13	0.21751	− 8	0.06793	2	9.715	0.20056	− 8	0.07261	2	9.727	13
14	0.21723	−11	0.06800	3	9.715	0.20028	−11	0.07269	3	9.727	14
15	0.21694	−14	0.06808	4	9.715	0.20000	−14	0.07277	4	9.727	15
16	0.21666	−17	0.06816	5	9.715	0.19972	−17	0.07285	5	9.727	16
17	0.21637	−20	0.06823	6	9.715	0.19944	−20	0.07293	6	9.728	17
18	0.21609	−22	0.06831	6	9.716	0.19916	−22	0.07301	6	9.728	18
19	0.21581	−25	0.06839	7	9.716	0.19888	−25	0.07309	7	9.728	19
20	0.21552	−28	0.06846	8	9.716	0.19860	−28	0.07317	8	9.728	20
21	0.21524	− 3	0.06854	1	9.716	0.19832	− 3	0.07325	1	9.728	21
22	0.21495	− 6	0.06862	2	9.716	0.19805	− 6	0.07333	2	9.729	22
23	0.21467	− 8	0.06869	2	9.717	0.19777	− 8	0.07341	2	9.729	23
24	0.21438	−11	0.06877	3	9.717	0.19749	−11	0.07349	3	9.729	24
25	0.21410	−14	0.06885	4	9.717	0.19721	−14	0.07357	4	9.729	25
26	0.21382	−17	0.06892	5	9.717	0.19693	−17	0.07365	5	9.729	26
27	0.21353	−20	0.06900	6	9.717	0.19665	−20	0.07373	6	9.730	27
28	0.21325	−22	0.06908	6	9.718	0.19637	−22	0.07381	6	9.730	28
29	0.21296	−25	0.06916	7	9.718	0.19609	−25	0.07389	7	9.730	29
30	0.21268	−28	0.06923	8	9.718	0.19581	−28	0.07397	8	9.730	30
31	0.21240	− 3	0.06931	1	9.718	0.19553	− 3	0.07405	1	9.730	31
32	0.21211	− 6	0.06939	2	9.718	0.19526	− 6	0.07413	2	9.731	32
33	0.21183	− 8	0.06947	2	9.719	0.19498	− 8	0.07421	2	9.731	33
34	0.21155	−11	0.06954	3	9.719	0.19470	−11	0.07429	3	9.731	34
35	0.21126	−14	0.06962	4	9.719	0.19442	−14	0.07437	4	9.731	35
36	0.21098	−17	0.06970	5	9.719	0.19414	−17	0.07445	5	9.731	36
37	0.21070	−20	0.06978	6	9.720	0.19386	−20	0.07454	6	9.732	37
38	0.21041	−22	0.06986	6	9.720	0.19358	−22	0.07462	6	9.732	38
39	0.21013	−25	0.06993	7	9.720	0.19331	−25	0.07470	7	9.732	39
40	0.20985	−28	0.07001	8	9.720	0.19303	−28	0.07478	8	9.732	40
41	0.20957	− 3	0.07009	1	9.720	0.19275	− 3	0.07486	1	9.732	41
42	0.20928	− 6	0.07017	2	9.721	0.19247	− 6	0.07494	2	9.733	42
43	0.20900	− 8	0.07024	2	9.721	0.19219	− 8	0.07502	2	9.733	43
44	0.20872	−11	0.07032	3	9.721	0.19192	−11	0.07510	3	9.733	44
45	0.20844	−14	0.07040	4	9.721	0.19164	−14	0.07518	4	9.733	45
46	0.20815	−17	0.07048	5	9.721	0.19136	−17	0.07527	5	9.733	46
47	0.20787	−20	0.07056	6	9.722	0.19108	−20	0.07535	6	9.734	47
48	0.20759	−22	0.07064	6	9.722	0.19081	−22	0.07543	6	9.734	48
49	0.20731	−25	0.07071	7	9.722	0.19053	−25	0.07551	7	9.734	49
50	0.20703	−28	0.07079	8	9.722	0.19025	−28	0.07559	8	9.734	50
51	0.20674	− 3	0.07087	1	9.722	0.18997	− 3	0.07567	1	9.734	51
52	0.20646	− 6	0.07095	2	9.723	0.18970	− 6	0.07575	2	9.735	52
53	0.20618	− 8	0.07103	2	9.723	0.18942	− 8	0.07584	2	9.735	53
54	0.20590	−11	0.07111	3	9.723	0.18914	−11	0.07592	3	9.735	54
55	0.20562	−14	0.07119	4	9.723	0.18887	−14	0.07600	4	9.735	55
56	0.20534	−17	0.07126	5	9.723	0.18859	−17	0.07608	5	9.735	56
57	0.20505	−20	0.07134	6	9.724	0.18831	−20	0.07616	6	9.736	57
58	0.20477	−22	0.07142	6	9.724	0.18804	−22	0.07624	6	9.736	58
59	0.20449	−25	0.07150	7	9.724	0.18776	−25	0.07633	7	9.736	59
60	0.20421		0.07158		9.724	0.18748		0.07641		9.736	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表 *K* 表

*K*ノ符號	*h*……………0°−90°−180°−270°−360°
*l*ト*d*トガ 同名ナルトキ	＋ ～ ～ ＋
*l*ト*d*トガ 異名ナルトキ	～ ＋ ＋ ～

′	33° K_3 L. Cot.	P.P.	33° A_2 L. Sec.	P.P.	33° Z_2 L. Sin.	34° K_3 L. Cot.	P.P.	34° A_2 L. Sec.	P.P.	34° Z_2 L. Sin.	′
0	0.18748	−28	0.07641	8	9.736	0.17101	−27	0.08143	9	9.748	0
1	0.18721	−3	0.07649	1	9.736	0.17074	−3	0.08151	1	9.748	1
2	0.18693	−6	0.07657	2	9.736	0.17047	−5	0.08160	2	9.748	2
3	0.18665	−8	0.07665	2	9.737	0.17020	−8	0.08168	3	9.748	3
4	0.18638	−11	0.07674	3	9.737	0.16992	−11	0.08177	4	9.748	4
5	0.18610	−14	0.07682	4	9.737	0.16965	−14	0.08185	5	9.748	5
6	0.18582	−17	0.07690	5	9.737	0.16938	−16	0.08194	5	9.749	6
7	0.18555	−20	0.07698	6	9.737	0.16911	−19	0.08202	6	9.749	7
8	0.18527	−22	0.07707	6	9.738	0.16883	−22	0.08211	7	9.749	8
9	0.18500	−25	0.07715	7	9.738	0.16856	−24	0.08219	8	9.749	9
10	0.18472	−28	0.07723	8	9.738	0.16829	−27	0.08228	9	9.749	10
11	0.18444	−3	0.07731	1	9.738	0.16802	−3	0.08237	1	9.750	11
12	0.18417	−6	0.07740	2	9.738	0.16775	−5	0.08245	2	9.750	12
13	0.18389	−8	0.07748	2	9.739	0.16748	−8	0.08254	3	9.750	13
14	0.18362	−11	0.07756	3	9.739	0.16720	−11	0.08262	4	9.750	14
15	0.18334	−14	0.07765	4	9.739	0.16693	−14	0.08271	5	9.750	15
16	0.18307	−17	0.07773	5	9.739	0.16666	−16	0.08280	5	9.751	16
17	0.18279	−20	0.07781	6	9.739	0.16639	−19	0.08288	6	9.751	17
18	0.18252	−22	0.07789	6	9.740	0.16612	−22	0.08297	7	9.751	18
19	0.18224	−25	0.07798	7	9.740	0.16585	−24	0.08305	8	9.751	19
20	0.18197	−27	0.07806	8	9.740	0.16558	−27	0.08314	9	9.751	20
21	0.18169	−3	0.07814	1	9.740	0.16530	−3	0.08323	1	9.751	21
22	0.18142	−5	0.07823	2	9.740	0.16503	−5	0.08331	2	9.752	22
23	0.18114	−8	0.07831	2	9.741	0.16476	−8	0.08340	3	9.752	23
24	0.18087	−11	0.07839	3	9.741	0.16449	−11	0.08349	4	9.752	24
25	0.18059	−14	0.07848	4	9.741	0.16422	−14	0.08357	5	9.752	25
26	0.18032	−16	0.07856	5	9.741	0.16395	−16	0.08366	5	9.752	26
27	0.18004	−19	0.07864	6	9.741	0.16368	−19	0.08375	6	9.753	27
28	0.17977	−22	0.07873	6	9.742	0.16341	−22	0.08383	7	9.753	28
29	0.17949	−24	0.07881	7	9.742	0.16314	−24	0.08392	8	9.753	29
30	0.17922	−27	0.07889	8	9.742	0.16287	−27	0.08401	9	9.753	30
31	0.17894	−3	0.07898	1	9.742	0.16260	−3	0.08409	1	9.753	31
32	0.17867	−5	0.07906	2	9.742	0.16232	−5	0.08418	2	9.753	32
33	0.17839	−8	0.07914	2	9.742	0.16205	−8	0.08427	3	9.754	33
34	0.17812	−11	0.07923	3	9.743	0.16178	−11	0.08435	4	9.754	34
35	0.17785	−14	0.07931	4	9.743	0.16151	−14	0.08444	5	9.754	35
36	0.17757	−16	0.07940	5	9.743	0.16124	−16	0.08453	5	9.754	36
37	0.17730	−19	0.07948	6	9.743	0.16097	−19	0.08462	6	9.754	37
38	0.17702	−22	0.07956	6	9.743	0.16070	−22	0.08470	7	9.755	38
39	0.17675	−24	0.07965	7	9.744	0.16043	−24	0.08479	8	9.755	39
40	0.17648	−27	0.07973	8	9.744	0.16016	−27	0.08488	9	9.755	40
41	0.17620	−3	0.07982	1	9.744	0.15989	−3	0.08496	1	9.755	41
42	0.17593	−5	0.07990	2	9.744	0.15962	−5	0.08505	2	9.755	42
43	0.17565	−8	0.07998	2	9.744	0.15935	−8	0.08514	3	9.756	43
44	0.17538	−11	0.08007	3	9.745	0.15908	−11	0.08523	4	9.756	44
45	0.17511	−14	0.08015	4	9.745	0.15881	−14	0.08531	5	9.756	45
46	0.17483	−16	0.08024	5	9.745	0.15854	−16	0.08540	5	9.756	46
47	0.17456	−19	0.08032	6	9.745	0.15827	−19	0.08549	6	9.756	47
48	0.17429	−22	0.08041	6	9.745	0.15800	−22	0.08558	7	9.756	48
49	0.17401	−24	0.08049	7	9.745	0.15773	−24	0.08567	8	9.757	49
50	0.17374	−27	0.08058	8	9.746	0.15746	−27	0.08575	9	9.757	50
51	0.17347	−3	0.08066	1	9.746	0.15720	−3	0.08584	1	9.757	51
52	0.17319	−5	0.08075	2	9.746	0.15693	−5	0.08593	2	9.757	52
53	0.17292	−8	0.08083	2	9.746	0.15666	−8	0.08602	3	9.757	53
54	0.17265	−11	0.08092	3	9.746	0.15639	−11	0.08611	4	9.758	54
55	0.17238	−14	0.08100	4	9.747	0.15612	−14	0.08619	5	9.758	55
56	0.17210	−16	0.08109	5	9.747	0.15585	−16	0.08628	5	9.758	56
57	0.17183	−19	0.08117	6	9.747	0.15558	−19	0.08637	6	9.758	57
58	0.17156	−22	0.08126	6	9.747	0.15531	−22	0.08646	7	9.758	58
59	0.17129	−24	0.08134	7	9.747	0.15504	−24	0.08655	8	9.758	59
60	0.17101		0.08143		9.748	0.15477		0.08664		9.759	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表 *K* 表

*K*ノ符號	*h*……………0°−90°−180°−270°−360°
*l*ト*d*トガ 同名ナルトキ	＋ ～ ～ ＋
*l*ト*d*トガ 異名ナルトキ	～ ＋ ＋ ～

′	35° K_3 L. Cot.	P.P.	35° A_2 L. Sec.	P.P.	35° Z_2 L. Sin.	36° K_3 L. Cot.	P.P.	36° A_2 L. Sec.	P.P.	36° Z_2 L. Sin.	′
0	0.15477	−27	0.08664	9	9.759	0.13874	−27	0.09204	9	9.769	0
1	0.15450	−3	0.08672	1	9.759	0.13847	−3	0.09213	1	9.769	1
2	0.15424	−5	0.08681	2	9.759	0.13821	−5	0.09223	2	9.770	2
3	0.15397	−8	0.08690	3	9.759	0.13794	−8	0.09232	3	9.770	3
4	0.15370	−11	0.08699	4	9.759	0.13768	−11	0.09241	4	9.770	4
5	0.15343	−14	0.08708	5	9.759	0.13741	−14	0.09250	5	9.770	5
6	0.15316	−16	0.08717	5	9.760	0.13715	−16	0.09259	5	9.770	6
7	0.15289	−19	0.08726	6	9.760	0.13688	−19	0.09269	6	9.770	7
8	0.15262	−22	0.08734	7	9.760	0.13662	−22	0.09278	7	9.771	8
9	0.15236	−24	0.08743	8	9.760	0.13635	−24	0.09287	8	9.771	9
10	0.15209	−27	0.08752	9	9.760	0.13608	−26	0.09296	9	9.771	10
11	0.15182	−3	0.08761	1	9.761	0.13582	−3	0.09306	1	9.771	11
12	0.15155	−5	0.08770	2	9.761	0.13555	−5	0.09315	2	9.771	12
13	0.15128	−8	0.08779	3	9.761	0.13529	−8	0.09324	3	9.771	13
14	0.15101	−11	0.08788	4	9.761	0.13502	−10	0.09333	4	9.772	14
15	0.15075	−14	0.08797	5	9.761	0.13476	−13	0.09343	5	9.772	15
16	0.15048	−16	0.08806	5	9.761	0.13449	−16	0.09352	5	9.772	16
17	0.15021	−19	0.08815	6	9.762	0.13423	−18	0.09361	6	9.772	17
18	0.14994	−22	0.08824	7	9.762	0.13397	−21	0.09370	7	9.772	18
19	0.14967	−24	0.08833	8	9.762	0.13370	−23	0.09380	8	9.773	19
20	0.14941	−27	0.08842	9	9.762	0.13344	−26	0.09389	9	9.773	20
21	0.14914	−3	0.08851	1	9.762	0.13317	−3	0.09398	1	9.773	21
22	0.14887	−5	0.08859	2	9.763	0.13291	−5	0.09408	2	9.773	22
23	0.14860	−8	0.08868	3	9.763	0.13264	−8	0.09417	3	9.773	23
24	0.14834	−11	0.08877	4	9.763	0.13238	−10	0.09426	4	9.773	24
25	0.14807	−14	0.08886	5	9.763	0.13211	−13	0.09435	5	9.774	25
26	0.14780	−16	0.08895	5	9.763	0.13185	−16	0.09445	5	9.774	26
27	0.14753	−19	0.08904	6	9.763	0.13158	−18	0.09454	6	9.774	27
28	0.14727	−22	0.08913	7	9.764	0.13132	−21	0.09463	7	9.774	28
29	0.14700	−24	0.08922	8	9.764	0.13106	−23	0.09473	8	9.774	29
30	0.14673	−27	0.08931	9	9.764	0.13079	−26	0.09482	9	9.774	30
31	0.14646	−3	0.08940	1	9.764	0.13053	−3	0.09491	1	9.775	31
32	0.14620	−5	0.08949	2	9.764	0.13026	−5	0.09501	2	9.775	32
33	0.14593	−8	0.08958	3	9.764	0.13000	−8	0.09510	3	9.775	33
34	0.14566	−11	0.08967	4	9.765	0.12973	−10	0.09520	4	9.775	34
35	0.14540	−14	0.08977	5	9.765	0.12947	−13	0.09529	5	9.775	35
36	0.14513	−16	0.08986	5	9.765	0.12921	−16	0.09538	5	9.775	36
37	0.14486	−19	0.08995	6	9.765	0.12894	−18	0.09548	6	9.776	37
38	0.14460	−22	0.09004	7	9.765	0.12868	−21	0.09557	7	9.776	38
39	0.14433	−24	0.09013	8	9.766	0.12842	−23	0.09566	8	9.776	39
40	0.14406	−27	0.09022	9	9.766	0.12815	−26	0.09576	9	9.776	40
41	0.14380	−3	0.09031	1	9.766	0.12789	−3	0.09585	1	9.776	41
42	0.14353	−5	0.09040	2	9.766	0.12762	−5	0.09595	2	9.776	42
43	0.14326	−8	0.09049	3	9.766	0.12736	−8	0.09604	3	9.777	43
44	0.14300	−11	0.09058	4	9.766	0.12710	−10	0.09614	4	9.777	44
45	0.14273	−14	0.09067	5	9.767	0.12683	−13	0.09623	5	9.777	45
46	0.14246	−16	0.09076	5	9.767	0.12657	−16	0.09632	5	9.777	46
47	0.14220	−19	0.09085	6	9.767	0.12631	−18	0.09642	6	9.777	47
48	0.14193	−22	0.09094	7	9.767	0.12604	−21	0.09651	7	9.777	48
49	0.14166	−24	0.09104	8	9.767	0.12578	−23	0.09661	8	9.778	49
50	0.14140	−27	0.09113	9	9.767	0.12552	−26	0.09670	9	9.778	50
51	0.14113	−3	0.09122	1	9.768	0.12525	−3	0.09680	1	9.778	51
52	0.14087	−5	0.09131	2	9.768	0.12499	−5	0.09689	2	9.778	52
53	0.14060	−8	0.09140	3	9.768	0.12473	−8	0.09699	3	9.778	53
54	0.14033	−11	0.09149	4	9.768	0.12446	−10	0.09708	4	9.778	54
55	0.14007	−14	0.09158	5	9.768	0.12420	−13	0.09718	5	9.779	55
56	0.13980	−16	0.09168	5	9.769	0.12394	−16	0.09727	5	9.779	56
57	0.13954	−19	0.09177	6	9.769	0.12367	−18	0.09737	6	9.779	57
58	0.13927	−22	0.09186	7	9.769	0.12341	−21	0.09746	7	9.779	58
59	0.13900	−24	0.09195	8	9.769	0.12315	−23	0.09756	8	9.779	59
60	0.13874		0.09204		9.769	0.12289		0.09765		9.779	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表 *K* 表

h……………0°−90°−180°−270°−360°

Kノ符號 *l*ト*d*トガ {同名ナルトキ ＋ ～ ～ ＋
{異名ナルトキ ～ ＋ ＋ ～

′	37°					38°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	0.12289	−26	0.09765	10	9.779	0.10719	−26	0.10347	10	9.789	0
1	0.12262	− 3	0.09775	1	9.780	0.10693	− 3	0.10357	1	9.790	1
2	0.12236	− 5	0.09784	2	9.780	0.10667	− 5	0.10367	2	9.790	2
3	0.12210	− 8	0.09794	3	9.780	0.10641	− 8	0.10376	3	9.790	3
4	0.12183	−10	0.09803	4	9.780	0.10615	−10	0.10386	4	9.790	4
5	0.12157	−13	0.09813	5	9.780	0.10589	−13	0.10396	5	9.790	5
6	0.12131	−16	0.09822	6	9.780	0.10563	−16	0.10406	6	9.790	6
7	0.12105	−18	0.09832	7	9.781	0.10537	−18	0.10416	7	9.790	7
8	0.12078	−21	0.09841	8	9.781	0.10511	−21	0.10426	8	9.791	8
9	0.12052	−23	0.09851	9	9.781	0.10485	−23	0.10436	9	9.791	9
10	0.12026	−26	0.09861	10	9.781	0.10459	−26	0.10446	10	9.791	10
11	0.12000	− 3	0.09870	1	9.781	0.10433	− 3	0.10456	1	9.791	11
12	0.11973	− 5	0.09880	2	9.781	0.10407	− 5	0.10466	2	9.791	12
13	0.11947	− 8	0.09889	3	9.782	0.10381	− 8	0.10476	3	9.791	13
14	0.11921	−10	0.09899	4	9.782	0.10355	−10	0.10486	4	9.792	14
15	0.11895	−13	0.09909	5	9.782	0.10329	−13	0.10496	5	9.792	15
16	0.11869	−16	0.09918	6	9.782	0.10303	−16	0.10505	6	9.792	16
17	0.11842	−18	0.09928	7	9.782	0.10277	−18	0.10515	7	9.792	17
18	0.11816	−21	0.09937	8	9.782	0.10251	−21	0.10525	8	9.792	18
19	0.11790	−23	0.09947	9	9.783	0.10225	−23	0.10535	9	9.792	19
20	0.11764	−26	0.09957	10	9.783	0.10199	−26	0.10545	10	9.793	20
21	0.11738	− 3	0.09966	1	9.783	0.10173	− 3	0.10555	1	9.793	21
22	0.11711	− 5	0.09976	2	9.783	0.10147	− 5	0.10565	2	9.793	22
23	0.11685	− 8	0.09986	3	9.783	0.10121	− 8	0.10575	3	9.793	23
24	0.11659	−10	0.09995	4	9.783	0.10095	−10	0.10585	4	9.793	24
25	0.11633	−13	0.10005	5	9.784	0.10069	−13	0.10595	5	9.793	25
26	0.11607	−16	0.10015	6	9.784	0.10043	−16	0.10605	6	9.794	26
27	0.11580	−18	0.10024	7	9.784	0.10017	−18	0.10615	7	9.794	27
28	0.11554	−21	0.10034	8	9.784	0.09991	−21	0.10625	8	9.794	28
29	0.11528	−23	0.10044	9	9.784	0.09965	−23	0.10636	9	9.794	29
30	0.11502	−26	0.10053	10	9.784	0.09939	−26	0.10646	10	9.794	30
31	0.11476	− 3	0.10063	1	9.785	0.09914	− 3	0.10656	1	9.794	31
32	0.11450	− 5	0.10073	2	9.785	0.09888	− 5	0.10666	2	9.794	32
33	0.11423	− 8	0.10082	3	9.785	0.09862	− 8	0.10676	3	9.795	33
34	0.11397	−10	0.10092	4	9.785	0.09836	−10	0.10686	4	9.795	34
35	0.11371	−13	0.10102	5	9.785	0.09810	−13	0.10696	5	9.795	35
36	0.11345	−16	0.10112	6	9.785	0.09784	−16	0.10706	6	9.795	36
37	0.11319	−18	0.10121	7	9.786	0.09758	−18	0.10716	7	9.795	37
38	0.11293	−21	0.10131	8	9.786	0.09732	−21	0.10726	8	9.795	38
39	0.11267	−23	0.10141	9	9.786	0.09706	−23	0.10736	9	9.796	39
40	0.11241	−26	0.10151	10	9.786	0.09680	−26	0.10746	10	9.796	40
41	0.11214	− 3	0.10160	1	9.786	0.09654	− 3	0.10756	1	9.796	41
42	0.11188	− 5	0.10170	2	9.786	0.09629	− 5	0.10767	2	9.796	42
43	0.11162	− 8	0.10180	3	9.787	0.09603	− 8	0.10777	3	9.796	43
44	0.11136	−10	0.10190	4	9.787	0.09577	−10	0.10787	4	9.796	44
45	0.11110	−13	0.10199	5	9.787	0.09551	−13	0.10797	5	9.797	45
46	0.11084	−16	0.10209	6	9.787	0.09525	−16	0.10807	6	9.797	46
47	0.11058	−18	0.10219	7	9.787	0.09499	−18	0.10817	7	9.797	47
48	0.11032	−21	0.10229	8	9.787	0.09473	−21	0.10827	8	9.797	48
49	0.11006	−23	0.10239	9	9.788	0.09447	−23	0.10838	9	9.797	49
50	0.10980	−26	0.10248	10	9.788	0.09422	−26	0.10848	10	9.797	50
51	0.10954	− 3	0.10258	1	9.788	0.09396	− 3	0.10858	1	9.797	51
52	0.10927	− 5	0.10268	2	9.788	0.09370	− 5	0.10868	2	9.798	52
53	0.10901	− 8	0.10278	3	9.788	0.09344	− 8	0.10878	3	9.798	53
54	0.10875	−10	0.10288	4	9.788	0.09318	−10	0.10888	4	9.798	54
55	0.10849	−13	0.10298	5	9.789	0.09292	−13	0.10899	5	9.798	55
56	0.10823	−16	0.10307	6	9.789	0.09266	−16	0.10909	6	9.798	56
57	0.10797	−18	0.10317	7	9.789	0.09241	−18	0.10919	7	9.798	57
58	0.10771	−21	0.10327	8	9.789	0.09215	−21	0.10929	8	9.799	58
59	0.10745	−23	0.10337	9	9.789	0.09189	−23	0.10940	9	9.799	59
60	0.10719		0.10347		9.789	0.09163		0.10950		9.799	60

$K_1 + K_2 = K_3 \to K \to A_2, Z_2$

高度及方位角計算表 *K* 表

h……………0°−90°−180°−270°−360°

Kノ符號 *l*ト*d*トガ {同名ナルトキ ＋ ～ ～ ＋
{異名ナルトキ ～ ＋ ＋ ～

′	39°					40°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	0.09163	−26	0.10950	10	9.799	0.07619	−26	0.11575	11	9.808	0
1	0.09137	− 3	0.10960	1	9.799	0.07593	− 3	0.11585	1	9.808	1
2	0.09111	− 5	0.10970	2	9.799	0.07567	− 5	0.11596	2	9.808	2
3	0.09086	− 8	0.10980	3	9.799	0.07542	− 8	0.11606	3	9.809	3
4	0.09060	−10	0.10991	4	9.799	0.07516	−10	0.11617	4	9.809	4
5	0.09034	−13	0.11001	5	9.800	0.07490	−13	0.11628	6	9.809	5
6	0.09008	−16	0.11011	6	9.800	0.07465	−16	0.11638	7	9.809	6
7	0.08982	−18	0.11022	7	9.800	0.07439	−18	0.11649	8	9.809	7
8	0.08957	−21	0.11032	8	9.800	0.07413	−21	0.11660	9	9.809	8
9	0.08931	−23	0.11042	9	9.800	0.07388	−23	0.11670	10	9.809	9
10	0.08905	−26	0.11052	10	9.800	0.07362	−26	0.11681	11	9.810	10
11	0.08879	− 3	0.11063	1	9.801	0.07337	− 3	0.11692	1	9.810	11
12	0.08853	− 5	0.11073	2	9.801	0.07311	− 5	0.11702	2	9.810	12
13	0.08828	− 8	0.11083	3	9.801	0.07285	− 8	0.11713	3	9.810	13
14	0.08802	−10	0.11094	4	9.801	0.07260	−10	0.11724	4	9.810	14
15	0.08776	−13	0.11104	5	9.801	0.07234	−13	0.11734	6	9.810	15
16	0.08750	−16	0.11114	6	9.801	0.07208	−16	0.11745	7	9.810	16
17	0.08724	−18	0.11125	7	9.802	0.07183	−18	0.11756	8	9.811	17
18	0.08699	−21	0.11135	8	9.802	0.07157	−21	0.11766	9	9.811	18
19	0.08673	−23	0.11145	9	9.802	0.07132	−23	0.11777	10	9.811	19
20	0.08647	−26	0.11156	10	9.802	0.07106	−26	0.11788	11	9.811	20
21	0.08621	− 3	0.11166	1	9.802	0.07080	− 3	0.11799	1	9.811	21
22	0.08596	− 5	0.11176	2	9.802	0.07055	− 5	0.11809	2	9.811	22
23	0.08570	− 8	0.11187	3	9.802	0.07029	− 8	0.11820	3	9.812	23
24	0.08544	−10	0.11197	4	9.803	0.07004	−10	0.11831	4	9.812	24
25	0.08518	−13	0.11207	5	9.803	0.06978	−13	0.11842	6	9.812	25
26	0.08493	−16	0.11218	6	9.803	0.06952	−16	0.11852	7	9.812	26
27	0.08467	−18	0.11228	7	9.803	0.06927	−18	0.11863	8	9.812	27
28	0.08441	−21	0.11239	8	9.803	0.06901	−21	0.11874	9	9.812	28
29	0.08415	−23	0.11249	9	9.803	0.06876	−23	0.11885	10	9.812	29
30	0.08390	−26	0.11259	10	9.804	0.06850	−26	0.11895	11	9.813	30
31	0.08364	− 3	0.11270	1	9.804	0.06825	− 3	0.11906	1	9.813	31
32	0.08338	− 5	0.11280	2	9.804	0.06799	− 5	0.11917	2	9.813	32
33	0.08312	− 8	0.11291	3	9.804	0.06773	− 8	0.11928	3	9.813	33
34	0.08287	−10	0.11301	4	9.804	0.06748	−10	0.11939	4	9.813	34
35	0.08261	−13	0.11312	5	9.804	0.06722	−13	0.11949	6	9.813	35
36	0.08235	−16	0.11322	6	9.804	0.06697	−16	0.11960	7	9.813	36
37	0.08209	−18	0.11332	7	9.805	0.06671	−18	0.11971	8	9.814	37
38	0.08184	−21	0.11343	8	9.805	0.06646	−21	0.11982	9	9.814	38
39	0.08158	−23	0.11353	9	9.805	0.06620	−23	0.11993	10	9.814	39
40	0.08132	−26	0.11364	11	9.805	0.06594	−26	0.12004	11	9.814	40
41	0.08107	− 3	0.11374	1	9.805	0.06569	− 3	0.12015	1	9.814	41
42	0.08081	− 5	0.11385	2	9.805	0.06543	− 5	0.12025	2	9.814	42
43	0.08055	− 8	0.11395	3	9.805	0.06518	− 8	0.12036	3	9.814	43
44	0.08029	−10	0.11406	4	9.806	0.06492	−10	0.12047	4	9.815	44
45	0.08004	−13	0.11416	6	9.806	0.06467	−13	0.12058	6	9.815	45
46	0.07978	−16	0.11427	7	9.806	0.06441	−16	0.12069	7	9.815	46
47	0.07952	−18	0.11437	8	9.806	0.06416	−18	0.12080	8	9.815	47
48	0.07927	−21	0.11448	9	9.806	0.06390	−21	0.12091	9	9.815	48
49	0.07901	−23	0.11458	10	9.806	0.06364	−23	0.12102	10	9.815	49
50	0.07875	−26	0.11469	11	9.807	0.06339	−26	0.12113	11	9.815	50
51	0.07850	− 3	0.11479	1	9.807	0.06313	− 3	0.12123	1	9.816	51
52	0.07824	− 5	0.11490	2	9.807	0.06288	− 5	0.12134	2	9.816	52
53	0.07798	− 8	0.11501	3	9.807	0.06262	− 8	0.12145	3	9.816	53
54	0.07773	−10	0.11511	4	9.807	0.06237	−10	0.12156	4	9.816	54
55	0.07747	−13	0.11522	6	9.807	0.06211	−13	0.12167	6	9.816	55
56	0.07721	−16	0.11532	7	9.807	0.06186	−16	0.12178	7	9.816	56
57	0.07696	−18	0.11543	8	9.808	0.06160	−18	0.12189	8	9.817	57
58	0.07670	−21	0.11553	9	9.808	0.06135	−21	0.12200	9	9.817	58
59	0.07644	−23	0.11564	10	9.808	0.06109	−23	0.12211	10	9.817	59
60	0.07619		0.11575		9.808	0.06084		0.12222		9.817	60

$K_1 + K_2 = K_3 \to K \to A_2, Z_2$

高度及方位角計算表 K 表

Kノ符號 h……………0°－90°－180°－270°－360°
l トdトガ { 同名ナルトキ　＋　～　～　＋
　　　　　{ 異名ナルトキ　～　＋　＋　～

′	41° K₃ L. Cot.	P.P.	41° A₂ L. Sec.	P.P.	41° Z₂ L. Sin.	42° K₃ L. Cot.	P.P.	42° A₂ L. Sec.	P.P.	42° Z₂ L. Sin.	′
0	0.06084	**−26**	0.12222	**11**	9.817	0.04556	**−25**	0.12893	**11**	9.826	0
1	0.06058	− 3	0.12233	1	9.817	0.04531	− 3	0.12904	1	9.826	1
2	0.06033	− 5	0.12244	2	9.817	0.04505	− 5	0.12915	2	9.826	2
3	0.06007	− 8	0.12255	3	9.817	0.04480	− 8	0.12927	3	9.826	3
4	0.05982	−10	0.12266	4	9.818	0.04455	−10	0.12938	4	9.826	4
5	0.05956	−13	0.12277	6	9.818	0.04429	−13	0.12950	6	9.826	5
6	0.05931	−16	0.12288	7	9.818	0.04404	−15	0.12961	7	9.826	6
7	0.05905	−18	0.12299	8	9.818	0.04378	−18	0.12972	8	9.826	7
8	0.05880	−21	0.12310	9	9.818	0.04353	−20	0.12984	9	9.827	8
9	0.05854	−23	0.12321	10	9.818	0.04328	−23	0.12995	10	9.827	9
10	0.05829	**−25**	0.12332	**11**	9.818	0.04302	**−25**	0.13007	**11**	9.827	10
11	0.05803	− 3	0.12343	1	9.819	0.04277	− 3	0.13018	1	9.827	11
12	0.05778	− 5	0.12354	2	9.819	0.04252	− 5	0.13030	2	9.827	12
13	0.05752	− 8	0.12365	3	9.819	0.04226	− 8	0.13041	3	9.827	13
14	0.05727	−10	0.12376	4	9.819	0.04201	−10	0.13053	4	9.827	14
15	0.05701	−13	0.12387	6	9.819	0.04175	−13	0.13064	6	9.828	15
16	0.05676	−15	0.12399	7	9.819	0.04150	−15	0.13076	7	9.828	16
17	0.05650	−18	0.12410	8	9.819	0.04125	−18	0.13087	8	9.828	17
18	0.05625	−20	0.12421	9	9.820	0.04099	−20	0.13098	9	9.828	18
19	0.05599	−23	0.12432	10	9.820	0.04074	−23	0.13110	10	9.828	19
20	0.05574	**−25**	0.12443	**11**	9.820	0.04048	**−25**	0.13121	**12**	9.828	20
21	0.05548	− 3	0.12454	1	9.820	0.04023	− 3	0.13133	1	9.828	21
22	0.05523	− 5	0.12465	2	9.820	0.03998	− 5	0.13145	2	9.829	22
23	0.05497	− 8	0.12476	3	9.820	0.03972	− 8	0.13156	4	9.829	23
24	0.05472	−10	0.12487	4	9.820	0.03947	−10	0.13168	5	9.829	24
25	0.05446	−13	0.12499	6	9.821	0.03922	−13	0.13179	6	9.829	25
26	0.05421	−15	0.12510	7	9.821	0.03896	−15	0.13191	7	9.829	26
27	0.05396	−18	0.12521	8	9.821	0.03871	−18	0.13202	8	9.829	27
28	0.05370	−20	0.12532	9	9.821	0.03845	−20	0.13214	10	9.829	28
29	0.05345	−23	0.12543	10	9.821	0.03820	−23	0.13225	11	9.830	29
30	0.05319	**−25**	0.12554	**11**	9.821	0.03795	**−25**	0.13237	**12**	9.830	30
31	0.05294	− 3	0.12566	1	9.821	0.03769	− 3	0.13248	1	9.830	31
32	0.05268	− 5	0.12577	2	9.822	0.03744	− 5	0.13260	2	9.830	32
33	0.05243	− 8	0.12588	3	9.822	0.03719	− 8	0.13272	4	9.830	33
34	0.05217	−10	0.12599	4	9.822	0.03693	−10	0.13283	5	9.830	34
35	0.05192	−13	0.12610	6	9.822	0.03668	−13	0.13295	6	9.830	35
36	0.05166	−15	0.12622	7	9.822	0.03643	−15	0.13306	7	9.831	36
37	0.05141	−18	0.12633	8	9.822	0.03617	−18	0.13318	8	9.831	37
38	0.05116	−20	0.12644	9	9.822	0.03592	−20	0.13330	10	9.831	38
39	0.05090	−23	0.12655	10	9.823	0.03567	−23	0.13341	11	9.831	39
40	0.05065	**−25**	0.12666	**11**	9.823	0.03541	**−25**	0.13353	**12**	9.831	40
41	0.05039	− 3	0.12678	1	9.823	0.03516	− 3	0.13365	1	9.831	41
42	0.05014	− 5	0.12689	2	9.823	0.03490	− 5	0.13376	2	9.831	42
43	0.04988	− 8	0.12700	3	9.823	0.03465	− 8	0.13388	4	9.831	43
44	0.04963	−10	0.12712	4	9.823	0.03440	−10	0.13400	5	9.832	44
45	0.04938	−13	0.12723	6	9.823	0.03414	−13	0.13411	6	9.832	45
46	0.04912	−15	0.12734	7	9.824	0.03389	−15	0.13423	7	9.832	46
47	0.04887	−18	0.12745	8	9.824	0.03364	−18	0.13435	8	9.832	47
48	0.04861	−20	0.12757	9	9.824	0.03338	−20	0.13446	10	9.832	48
49	0.04836	−23	0.12768	10	9.824	0.03313	−23	0.13458	11	9.832	49
50	0.04810	**−25**	0.12779	**11**	9.824	0.03288	**−25**	0.13470	**12**	9.832	50
51	0.04785	− 3	0.12791	1	9.824	0.03262	− 3	0.13482	1	9.833	51
52	0.04760	− 5	0.12802	2	9.824	0.03237	− 5	0.13493	2	9.833	52
53	0.04734	− 8	0.12813	3	9.825	0.03212	− 8	0.13505	4	9.833	53
54	0.04709	−10	0.12825	4	9.825	0.03186	−10	0.13517	5	9.833	54
55	0.04683	−13	0.12836	6	9.825	0.03161	−13	0.13528	6	9.833	55
56	0.04658	−15	0.12847	7	9.825	0.03136	−15	0.13540	7	9.833	56
57	0.04632	−18	0.12859	8	9.825	0.03110	−18	0.13552	8	9.833	57
58	0.04607	−20	0.12870	9	9.825	0.03085	−20	0.13564	10	9.834	58
59	0.04582	−23	0.12881	10	9.825	0.03060	−23	0.13575	11	9.834	59
60	0.04556		0.12893		9.826	0.03034		0.13587		9.834	60

$K_1 + K_2 = K_3 \to K \to A_2, Z_2$

高度及方位角計算表 K 表

Kノ符號 h……………0°－90°－180°－270°－360°
l トdトガ { 同名ナルトキ　＋　～　～　＋
　　　　　{ 異名ナルトキ　～　＋　＋　～

′	43° K₃ L. Cot.	P.P.	43° A₂ L. Sec.	P.P.	43° Z₂ L. Sin.	44° K₃ L. Cot.	P.P.	44° A₂ L. Sec.	P.P.	44° Z₂ L. Sin.	′
0	0.03034	**−25**	0.13587	**12**	9.834	0.01516	**−25**	0.14307	**12**	9.842	0
1	0.03009	− 3	0.13599	1	9.834	0.01491	− 3	0.14319	1	9.842	1
2	0.02984	− 5	0.13611	2	9.834	0.01466	− 5	0.14331	2	9.842	2
3	0.02958	− 8	0.13623	4	9.834	0.01440	− 8	0.14343	4	9.842	3
4	0.02933	−10	0.13634	5	9.834	0.01415	−10	0.14355	5	9.842	4
5	0.02908	−13	0.13646	6	9.834	0.01390	−13	0.14368	6	9.842	5
6	0.02882	−15	0.13658	7	9.835	0.01365	−15	0.14380	7	9.843	6
7	0.02857	−18	0.13670	8	9.835	0.01339	−18	0.14392	8	9.843	7
8	0.02832	−20	0.13682	10	9.835	0.01314	−20	0.14404	10	9.843	8
9	0.02807	−23	0.13694	11	9.835	0.01289	−23	0.14417	11	9.843	9
10	0.02781	**−25**	0.13705	**12**	9.835	0.01263	**−25**	0.14429	**12**	9.843	10
11	0.02756	− 3	0.13717	1	9.835	0.01238	− 3	0.14441	1	9.843	11
12	0.02731	− 5	0.13729	2	9.835	0.01213	− 5	0.14453	2	9.843	12
13	0.02705	− 8	0.13741	4	9.836	0.01188	− 8	0.14466	4	9.843	13
14	0.02680	−10	0.13753	5	9.836	0.01162	−10	0.14478	5	9.844	14
15	0.02655	−13	0.13765	6	9.836	0.01137	−13	0.14490	6	9.844	15
16	0.02629	−15	0.13777	7	9.836	0.01112	−15	0.14503	7	9.844	16
17	0.02604	−18	0.13789	8	9.836	0.01087	−18	0.14515	8	9.844	17
18	0.02579	−20	0.13800	10	9.836	0.01061	−20	0.14527	10	9.844	18
19	0.02553	−23	0.13812	11	9.836	0.01036	−23	0.14540	11	9.844	19
20	0.02528	**−25**	0.13824	**12**	9.836	0.01011	**−25**	0.14552	**12**	9.844	20
21	0.02503	− 3	0.13836	1	9.837	0.00985	− 3	0.14564	1	9.845	21
22	0.02477	− 5	0.13848	2	9.837	0.00960	− 5	0.14577	2	9.845	22
23	0.02452	− 8	0.13860	4	9.837	0.00935	− 8	0.14589	4	9.845	23
24	0.02427	−10	0.13872	5	9.837	0.00910	−10	0.14601	5	9.845	24
25	0.02402	−13	0.13884	6	9.837	0.00884	−13	0.14614	6	9.845	25
26	0.02376	−15	0.13896	7	9.837	0.00859	−15	0.14626	7	9.845	26
27	0.02351	−18	0.13908	8	9.837	0.00834	−18	0.14639	8	9.845	27
28	0.02326	−20	0.13920	10	9.838	0.00809	−20	0.14651	10	9.845	28
29	0.02300	−23	0.13932	11	9.838	0.00783	−23	0.14663	11	9.846	29
30	0.02275	**−25**	0.13944	**12**	9.838	0.00758	**−25**	0.14676	**12**	9.846	30
31	0.02250	− 3	0.13956	1	9.838	0.00733	− 3	0.14688	1	9.846	31
32	0.02224	− 5	0.13968	2	9.838	0.00707	− 5	0.14701	2	9.846	32
33	0.02199	− 8	0.13980	4	9.838	0.00682	− 8	0.14713	4	9.846	33
34	0.02174	−10	0.13992	5	9.838	0.00657	−10	0.14726	5	9.846	34
35	0.02149	−13	0.14004	6	9.838	0.00632	−13	0.14738	6	9.846	35
36	0.02123	−15	0.14016	7	9.839	0.00606	−15	0.14750	7	9.846	36
37	0.02098	−18	0.14028	8	9.839	0.00581	−18	0.14763	8	9.847	37
38	0.02073	−20	0.14040	10	9.839	0.00556	−20	0.14775	10	9.847	38
39	0.02047	−23	0.14052	11	9.839	0.00531	−23	0.14788	11	9.847	39
40	0.02022	**−25**	0.14064	**12**	9.839	0.00505	**−25**	0.14800	**13**	9.847	40
41	0.01997	− 3	0.14076	1	9.839	0.00480	− 3	0.14813	1	9.847	41
42	0.01971	− 5	0.14088	2	9.839	0.00455	− 5	0.14825	3	9.847	42
43	0.01946	− 8	0.14100	4	9.840	0.00430	− 8	0.14838	4	9.847	43
44	0.01921	−10	0.14112	5	9.840	0.00404	−10	0.14850	5	9.847	44
45	0.01896	−13	0.14124	6	9.840	0.00379	−13	0.14863	7	9.848	45
46	0.01870	−15	0.14136	7	9.840	0.00354	−15	0.14875	8	9.848	46
47	0.01845	−18	0.14149	8	9.840	0.00328	−18	0.14888	9	9.848	47
48	0.01820	−20	0.14161	10	9.840	0.00303	−20	0.14900	10	9.848	48
49	0.01794	−23	0.14173	11	9.840	0.00278	−23	0.14913	12	9.848	49
50	0.01769	**−25**	0.14185	**12**	9.840	0.00253	**−25**	0.14926	**13**	9.848	50
51	0.01744	− 3	0.14197	1	9.841	0.00227	− 3	0.14938	1	9.848	51
52	0.01719	− 5	0.14209	2	9.841	0.00202	− 5	0.14951	3	9.848	52
53	0.01693	− 8	0.14221	4	9.841	0.00177	− 8	0.14963	4	9.849	53
54	0.01668	−10	0.14234	5	9.841	0.00152	−10	0.14976	5	9.849	54
55	0.01643	−13	0.14246	6	9.841	0.00126	−13	0.14988	7	9.849	55
56	0.01617	−15	0.14258	7	9.841	0.00101	−15	0.15001	8	9.849	56
57	0.01592	−18	0.14270	8	9.841	0.00076	−18	0.15014	9	9.849	57
58	0.01567	−20	0.14282	10	9.842	0.00051	−20	0.15026	10	9.849	58
59	0.01542	−23	0.14294	11	9.842	0.00025	−23	0.15039	12	9.849	59
60	0.01516		0.14307		9.842	0.00000		0.15051		9.849	60

$K_1 + K_2 = K_3 \to K \to A_2, Z_2$

高度及方位角計算表 *K* 表

*K*ノ符號 *l*ト*d*トガ	*h*………………	0° — 90°	— 180°	— 270°	— 360°
	同名ナルトキ	+	～	～	+
	異名ナルトキ	～	+	+	～

′	45°					46°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	0.00000	**−25**	0.15051	**13**	9.849	9.98484	**−25**	0.15823	**13**	9.857	0
1	9.99975	− 3	0.15064	1	9.850	9.98458	− 3	0.15836	1	9.857	1
2	9.99949	− 5	0.15077	3	9.850	9.98433	− 5	0.15849	3	9.857	2
3	9.99924	− 8	0.15089	4	9.850	9.98408	− 8	0.15862	4	9.857	3
4	9.99899	−10	0.15102	5	9.850	9.98383	−10	0.15875	5	9.857	4
5	9.99874	−13	0.15115	7	9.850	9.98357	−13	0.15888	7	9.858	5
6	9.99848	−15	0.15127	8	9.850	9.98332	−15	0.15902	8	9.858	6
7	9.99823	−18	0.15140	9	9.850	9.98307	−18	0.15915	9	9.858	7
8	9.99798	−20	0.15153	10	9.850	9.98281	−20	0.15928	10	9.858	8
9	9.99773	−23	0.15165	12	9.851	9.98256	−23	0.15941	12	9.858	9
10	9.99747	**−25**	0.15178	**13**	9.851	9.98231	**−25**	0.15954	**13**	9.858	10
11	9.99722	− 3	0.15191	1	9.851	9.98206	− 3	0.15967	1	9.858	11
12	9.99697	− 5	0.15204	3	9.851	9.98180	− 5	0.15980	3	9.858	12
13	9.99672	− 8	0.15216	4	9.851	9.98155	− 8	0.15994	4	9.859	13
14	9.99646	−10	0.15229	5	9.851	9.98130	−10	0.16007	5	9.859	14
15	9.99621	−13	0.15242	7	9.851	9.98104	−13	0.16020	7	9.859	15
16	9.99596	−15	0.15255	8	9.851	9.98079	−15	0.16033	8	9.859	16
17	9.99570	−18	0.15267	9	9.852	9.98054	−18	0.16046	9	9.859	17
18	9.99545	−20	0.15280	10	9.852	9.98029	−20	0.16060	10	9.859	18
19	9.99520	−23	0.15293	12	9.852	9.98003	−23	0.16073	12	9.859	19
20	9.99495	**−25**	0.15306	**13**	9.852	9.97978	**−25**	0.16086	**13**	9.859	20
21	9.99469	− 3	0.15318	1	9.852	9.97953	− 3	0.16099	1	9.859	21
22	9.99444	− 5	0.15331	3	9.852	9.97927	− 5	0.16113	3	9.860	22
23	9.99419	− 8	0.15344	4	9.852	9.97902	− 8	0.16126	4	9.860	23
24	9.99394	−10	0.15357	5	9.852	9.97877	−10	0.16139	5	9.860	24
25	9.99368	−13	0.15370	7	9.853	9.97851	−13	0.16152	7	9.860	25
26	9.99343	−15	0.15382	8	9.853	9.97826	−15	0.16166	8	9.860	26
27	9.99318	−18	0.15395	9	9.853	9.97801	−18	0.16179	9	9.860	27
28	9.99293	−20	0.15408	10	9.853	9.97776	−20	0.16192	10	9.860	28
29	9.99267	−23	0.15421	12	9.853	9.97750	−23	0.16205	12	9.860	29
30	9.99242	**−25**	0.15434	**13**	9.853	9.97725	**−25**	0.16219	**13**	9.861	30
31	9.99217	− 3	0.15447	1	9.853	9.97700	− 3	0.16232	1	9.861	31
32	9.99191	− 5	0.15460	3	9.853	9.97674	− 5	0.16245	3	9.861	32
33	9.99166	− 8	0.15472	4	9.854	9.97649	− 8	0.16259	4	9.861	33
34	9.99141	−10	0.15485	5	9.854	9.97624	−10	0.16272	5	9.861	34
35	9.99116	−13	0.15498	7	9.854	9.97598	−13	0.16285	7	9.861	35
36	9.99090	−15	0.15511	8	9.854	9.97573	−15	0.16299	8	9.861	36
37	9.99065	−18	0.15524	9	9.854	9.97548	−18	0.16312	9	9.861	37
38	9.99040	−20	0.15537	10	9.854	9.97523	−20	0.16326	10	9.862	38
39	9.99015	−23	0.15550	12	9.854	9.97497	−23	0.16339	12	9.862	39
40	9.98989	**−25**	0.15563	**13**	9.854	9.97472	**−25**	0.16352	**13**	9.862	40
41	9.98964	− 3	0.15576	1	9.855	9.97447	− 3	0.16366	1	9.862	41
42	9.98939	− 5	0.15589	3	9.855	9.97421	− 5	0.16379	3	9.862	42
43	9.98913	− 8	0.15602	4	9.855	9.97396	− 8	0.16392	4	9.862	43
44	9.98888	−10	0.15615	5	9.855	9.97371	−10	0.16406	5	9.862	44
45	9.98863	−13	0.15627	7	9.855	9.97345	−13	0.16419	7	9.862	45
46	9.98838	−15	0.15640	8	9.855	9.97320	−15	0.16433	8	9.862	46
47	9.98812	−18	0.15653	9	9.855	9.97295	−18	0.16446	9	9.863	47
48	9.98787	−20	0.15666	10	9.855	9.97269	−20	0.16460	10	9.863	48
49	9.98762	−23	0.15679	12	9.856	9.97244	−23	0.16473	12	9.863	49
50	9.98737	**−25**	0.15692	**13**	9.856	9.97219	**−25**	0.16487	**14**	9.863	50
51	9.98711	− 3	0.15705	1	9.856	9.97193	− 3	0.16500	1	9.863	51
52	9.98686	− 5	0.15718	3	9.856	9.97168	− 5	0.16514	3	9.863	52
53	9.98661	− 8	0.15731	4	9.856	9.97143	− 8	0.16527	4	9.863	53
54	9.98635	−10	0.15745	5	9.856	9.97118	−10	0.16541	6	9.863	54
55	9.98610	−13	0.15758	7	9.856	9.97092	−13	0.16554	7	9.864	55
56	9.98585	−15	0.15771	8	9.856	9.97067	−15	0.16568	8	9.864	56
57	9.98560	−18	0.15784	9	9.857	9.97042	−18	0.16581	10	9.864	57
58	9.98534	−20	0.15797	10	9.857	9.97016	−20	0.16595	11	9.864	58
59	9.98509	−23	0.15810	12	9.857	9.96991	−23	0.16608	13	9.864	59
60	9.98484		0.15823		9.857	9.96966		0.16622		9.864	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2 , Z_2$

高度及方位角計算表 *K* 表

*K*ノ符號 *l*ト*d*トガ	*h*………………	0° — 90°	— 180°	— 270°	— 360°
	同名ナルトキ	+	～	～	+
	異名ナルトキ	～	+	+	～

′	47°					48°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.96966	**−25**	0.16622	**14**	9.864	9.95444	**−25**	0.17449	**14**	9.871	0
1	9.96940	− 3	0.16635	1	9.864	9.95418	− 3	0.17463	1	9.871	1
2	9.96915	− 5	0.16649	3	9.864	9.95393	− 5	0.17477	3	9.871	2
3	9.96890	− 8	0.16662	4	9.864	9.95368	− 8	0.17491	4	9.871	3
4	9.96864	−10	0.16676	6	9.865	9.95342	−10	0.17505	6	9.872	4
5	9.96839	−13	0.16690	7	9.865	9.95317	−13	0.17519	7	9.872	5
6	9.96814	−15	0.16703	8	9.865	9.95291	−15	0.17533	8	9.872	6
7	9.96788	−18	0.16717	10	9.865	9.95266	−18	0.17547	10	9.872	7
8	9.96763	−20	0.16730	11	9.865	9.95240	−20	0.17561	11	9.872	8
9	9.96738	−23	0.16744	13	9.865	9.95215	−23	0.17576	13	9.872	9
10	9.96712	**−25**	0.16758	**14**	9.865	9.95190	**−25**	0.17590	**14**	9.872	10
11	9.96687	− 3	0.16771	1	9.865	9.95164	− 3	0.17604	1	9.872	11
12	9.96662	− 5	0.16785	3	9.866	9.95139	− 5	0.17618	3	9.872	12
13	9.96636	− 8	0.16798	4	9.866	9.95113	− 8	0.17632	4	9.873	13
14	9.96611	−10	0.16812	6	9.866	9.95088	−10	0.17646	6	9.873	14
15	9.96586	−13	0.16826	7	9.866	9.95062	−13	0.17660	7	9.873	15
16	9.96560	−15	0.16839	8	9.866	9.95037	−15	0.17674	8	9.873	16
17	9.96535	−18	0.16853	10	9.866	9.95012	−18	0.17689	10	9.873	17
18	9.96510	−20	0.16867	11	9.866	9.94986	−20	0.17703	11	9.873	18
19	9.96484	−23	0.16880	13	9.866	9.94961	−23	0.17717	13	9.873	19
20	9.96459	**−25**	0.16894	**14**	9.866	9.94935	**−25**	0.17731	**14**	9.873	20
21	9.96433	− 3	0.16908	1	9.867	9.94910	− 3	0.17745	1	9.873	21
22	9.96408	− 5	0.16922	3	9.867	9.94884	− 5	0.17760	3	9.874	22
23	9.96383	− 8	0.16935	4	9.867	9.94859	− 8	0.17774	4	9.874	23
24	9.96357	−10	0.16949	6	9.867	9.94834	−10	0.17788	6	9.874	24
25	9.96332	−13	0.16963	7	9.867	9.94808	−13	0.17802	7	9.874	25
26	9.96307	−15	0.16977	8	9.867	9.94783	−15	0.17816	8	9.874	26
27	9.96281	−18	0.16990	10	9.867	9.94757	−18	0.17831	10	9.874	27
28	9.96256	−20	0.17004	11	9.867	9.94732	−20	0.17845	11	9.874	28
29	9.96231	−23	0.17018	13	9.868	9.94706	−23	0.17859	13	9.874	29
30	9.96205	**−25**	0.17032	**14**	9.868	9.94681	**−25**	0.17874	**14**	9.874	30
31	9.96180	− 3	0.17045	1	9.868	9.94655	− 3	0.17888	1	9.875	31
32	9.96155	− 5	0.17059	3	9.868	9.94630	− 5	0.17902	3	9.875	32
33	9.96129	− 8	0.17073	4	9.868	9.94604	− 8	0.17916	4	9.875	33
34	9.96104	−10	0.17087	6	9.868	9.94579	−10	0.17931	6	9.875	34
35	9.96078	−13	0.17101	7	9.868	9.94554	−13	0.17945	7	9.875	35
36	9.96053	−15	0.17115	8	9.868	9.94528	−15	0.17959	8	9.875	36
37	9.96028	−18	0.17128	10	9.868	9.94503	−18	0.17974	10	9.875	37
38	9.96002	−20	0.17142	11	9.869	9.94477	−20	0.17988	11	9.875	38
39	9.95977	−23	0.17156	13	9.869	9.94452	−23	0.18002	13	9.875	39
40	9.95952	**−25**	0.17170	**14**	9.869	9.94426	**−25**	0.18017	**14**	9.876	40
41	9.95926	− 3	0.17184	1	9.869	9.94401	− 3	0.18031	1	9.876	41
42	9.95901	− 5	0.17198	3	9.869	9.94375	− 5	0.18045	3	9.876	42
43	9.95875	− 8	0.17212	4	9.869	9.94350	− 8	0.18060	4	9.876	43
44	9.95850	−10	0.17225	6	9.869	9.94324	−10	0.18074	6	9.876	44
45	9.95825	−13	0.17239	7	9.869	9.94299	−13	0.18089	7	9.876	45
46	9.95799	−15	0.17253	8	9.869	9.94273	−15	0.18103	8	9.876	46
47	9.95774	−18	0.17267	10	9.870	9.94248	−18	0.18118	10	9.876	47
48	9.95748	−20	0.17281	11	9.870	9.94222	−20	0.18132	11	9.876	48
49	9.95723	−23	0.17295	13	9.870	9.94197	−23	0.18146	13	9.877	49
50	9.95698	**−25**	0.17309	**14**	9.870	9.94171	**−26**	0.18161	**14**	9.877	50
51	9.95672	− 3	0.17323	1	9.870	9.94146	− 3	0.18175	1	9.877	51
52	9.95647	− 5	0.17337	3	9.870	9.94120	− 5	0.18190	3	9.877	52
53	9.95622	− 8	0.17351	4	9.870	9.94095	− 8	0.18204	4	9.877	53
54	9.95596	−10	0.17365	6	9.870	9.94069	−10	0.18219	6	9.877	54
55	9.95571	−13	0.17379	7	9.871	9.94044	−13	0.18233	7	9.877	55
56	9.95545	−15	0.17393	8	9.871	9.94018	−16	0.18248	8	9.877	56
57	9.95520	−18	0.17407	10	9.871	9.93993	−18	0.18262	10	9.877	57
58	9.95495	−20	0.17421	11	9.871	9.93967	−21	0.18277	11	9.878	58
59	9.95469	−23	0.17435	13	9.871	9.93942	−23	0.18291	13	9.878	59
60	9.95444		0.17449		9.871	9.93916		0.18306		9.878	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2 , Z_2$

高度及方位角計算表 K 表

h……………0°—90°—180°—270°—360°

K ノ符號 *l*ト*d*トガ
- 同名ナルトキ　＋　～　～　＋
- 異名ナルトキ　～　＋　＋　～

′	49°					50°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.93916	−26	0.18306	15	9.878	9.92381	−26	0.19193	15	9.884	0
1	9.93891	− 3	0.18320	2	9.878	9.92356	− 3	0.19208	2	9.884	1
2	9.93865	− 5	0.18335	3	9.878	9.92330	− 5	0.19223	3	9.884	2
3	9.93840	− 8	0.18349	5	9.878	9.92304	− 8	0.19238	5	9.885	3
4	9.93814	−10	0.18364	6	9.878	9.92279	−10	0.19254	6	9.885	4
5	9.93789	−13	0.18378	8	9.878	9.92253	−13	0.19269	8	9.885	5
6	9.93763	−16	0.18393	9	9.878	9.92227	−16	0.19284	9	9.885	6
7	9.93738	−18	0.18408	11	9.879	9.92202	−18	0.19299	11	9.885	7
8	9.93712	−21	0.18422	12	9.879	9.92176	−21	0.19314	12	9.885	8
9	9.93687	−23	0.18437	14	9.879	9.92150	−23	0.19329	14	9.885	9
10	9.93661	−26	0.18451	15	9.879	9.92125	−26	0.19344	15	9.885	10
11	9.93636	− 3	0.18466	2	9.879	9.92099	− 3	0.19359	2	9.885	11
12	9.93610	− 5	0.18481	3	9.879	9.92073	− 5	0.19375	3	9.886	12
13	9.93584	− 8	0.18495	5	9.879	9.92048	− 8	0.19390	5	9.886	13
14	9.93559	−10	0.18510	6	9.879	9.92022	−10	0.19405	6	9.886	14
15	9.93533	−13	0.18525	8	9.879	9.91996	−13	0.19420	8	9.886	15
16	9.93508	−16	0.18539	9	9.880	9.91971	−16	0.19435	9	9.886	16
17	9.93482	−18	0.18554	11	9.880	9.91945	−18	0.19450	11	9.886	17
18	9.93457	−21	0.18569	12	9.880	9.91919	−21	0.19466	12	9.886	18
19	9.93431	−23	0.18583	14	9.880	9.91893	−23	0.19481	14	9.886	19
20	9.93406	−26	0.18598	15	9.880	9.91868	−26	0.19496	15	9.886	20
21	9.93380	− 3	0.18613	2	9.880	9.91842	− 3	0.19511	2	9.886	21
22	9.93354	− 5	0.18628	3	9.880	9.91816	− 5	0.19527	3	9.887	22
23	9.93329	− 8	0.18642	5	9.880	9.91791	− 8	0.19542	5	9.887	23
24	9.93303	−10	0.18657	6	9.880	9.91765	−10	0.19557	6	9.887	24
25	9.93278	−13	0.18672	8	9.881	9.91739	−13	0.19572	8	9.887	25
26	9.93252	−16	0.18686	9	9.881	9.91713	−16	0.19588	9	9.887	26
27	9.93227	−18	0.18701	11	9.881	9.91688	−18	0.19603	11	9.887	27
28	9.93201	−21	0.18716	12	9.881	9.91662	−21	0.19618	12	9.887	28
29	9.93175	−23	0.18731	14	9.881	9.91636	−23	0.19634	14	9.887	29
30	9.93150	−26	0.18746	15	9.881	9.91610	−26	0.19649	15	9.887	30
31	9.93124	− 3	0.18760	2	9.881	9.91585	− 3	0.19664	2	9.888	31
32	9.93099	− 5	0.18775	3	9.881	9.91559	− 5	0.19680	3	9.888	32
33	9.93073	− 8	0.18790	5	9.881	9.91533	− 8	0.19695	5	9.888	33
34	9.93048	−10	0.18805	6	9.881	9.91507	−10	0.19710	6	9.888	34
35	9.93022	−13	0.18820	8	9.882	9.91482	−13	0.19726	8	9.888	35
36	9.92996	−16	0.18834	9	9.882	9.91456	−16	0.19741	9	9.888	36
37	9.92971	−18	0.18849	11	9.882	9.91430	−18	0.19756	11	9.888	37
38	9.92945	−21	0.18864	12	9.882	9.91404	−21	0.19772	12	9.888	38
39	9.92920	−23	0.18879	14	9.882	9.91379	−23	0.19787	14	9.888	39
40	9.92894	−26	0.18894	15	9.882	9.91353	−26	0.19803	15	9.888	40
41	9.92868	− 3	0.18909	2	9.882	9.91327	− 3	0.19818	2	9.889	41
42	9.92843	− 5	0.18924	3	9.882	9.91301	− 5	0.19834	3	9.889	42
43	9.92817	− 8	0.18939	5	9.882	9.91276	− 8	0.19849	5	9.889	43
44	9.92792	−10	0.18953	6	9.883	9.91250	−10	0.19864	6	9.889	44
45	9.92766	−13	0.18968	8	9.883	9.91224	−13	0.19880	8	9.889	45
46	9.92740	−16	0.18983	9	9.883	9.91198	−16	0.19895	9	9.889	46
47	9.92715	−18	0.18998	11	9.883	9.91172	−18	0.19911	11	9.889	47
48	9.92689	−21	0.19013	12	9.883	9.91147	−21	0.19926	12	9.889	48
49	9.92663	−23	0.19028	14	9.883	9.91121	−23	0.19942	14	9.889	49
50	9.92638	−26	0.19043	15	9.883	9.91095	−26	0.19957	16	9.889	50
51	9.92612	− 3	0.19058	2	9.883	9.91069	− 3	0.19973	2	9.890	51
52	9.92587	− 5	0.19073	3	9.883	9.91043	− 5	0.19988	3	9.890	52
53	9.92561	− 8	0.19088	5	9.884	9.91018	− 8	0.20004	5	9.890	53
54	9.92535	−10	0.19103	6	9.884	9.90992	−10	0.20019	6	9.890	54
55	9.92510	−13	0.19118	8	9.884	9.90966	−13	0.20035	8	9.890	55
56	9.92484	−16	0.19133	9	9.884	9.90940	−16	0.20050	10	9.890	56
57	9.92458	−18	0.19148	11	9.884	9.90914	−18	0.20066	11	9.890	57
58	9.92433	−21	0.19163	12	9.884	9.90889	−21	0.20082	13	9.890	58
59	9.92407	−23	0.19178	14	9.884	9.90863	−23	0.20097	14	9.890	59
60	9.92381		0.19193		9.884	9.90837		0.20113		9.891	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表 K 表

h……………0°—90°—180°—270°—360°

K ノ符號 *l*ト*d*トガ
- 同名ナルトキ　＋　～　～　＋
- 異名ナルトキ　～　＋　＋　～

′	51°					52°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.90837	−26	0.20113	16	9.891	9.89281	−26	0.21066	16	9.897	0
1	9.90811	− 3	0.20128	2	9.891	9.89255	− 3	0.21082	2	9.897	1
2	9.90785	− 5	0.20144	3	9.891	9.89229	− 5	0.21098	3	9.897	2
3	9.90759	− 8	0.20160	5	9.891	9.89203	− 8	0.21114	5	9.897	3
4	9.90734	−10	0.20175	6	9.891	9.89177	−10	0.21131	6	9.897	4
5	9.90708	−13	0.20191	8	9.891	9.89151	−13	0.21147	8	9.897	5
6	9.90682	−16	0.20207	10	9.891	9.89125	−16	0.21163	10	9.897	6
7	9.90656	−18	0.20222	11	9.891	9.89099	−18	0.21179	11	9.897	7
8	9.90630	−21	0.20238	13	9.891	9.89073	−21	0.21195	13	9.897	8
9	9.90604	−23	0.20254	14	9.891	9.89046	−23	0.21212	14	9.897	9
10	9.90578	−26	0.20269	16	9.892	9.89020	−26	0.21228	16	9.898	10
11	9.90553	− 3	0.20285	2	9.892	9.88994	− 3	0.21244	2	9.898	11
12	9.90527	− 5	0.20301	3	9.892	9.88968	− 5	0.21261	3	9.898	12
13	9.90501	− 8	0.20316	5	9.892	9.88942	− 8	0.21277	5	9.898	13
14	9.90475	−10	0.20332	6	9.892	9.88916	−10	0.21293	6	9.898	14
15	9.90449	−13	0.20348	8	9.892	9.88890	−13	0.21309	8	9.898	15
16	9.90423	−16	0.20364	10	9.892	9.88864	−16	0.21326	10	9.898	16
17	9.90397	−18	0.20379	11	9.892	9.88838	−18	0.21342	11	9.898	17
18	9.90371	−21	0.20395	13	9.892	9.88812	−21	0.21358	13	9.898	18
19	9.90346	−23	0.20411	14	9.892	9.88786	−23	0.21375	14	9.898	19
20	9.90320	−26	0.20427	16	9.893	9.88759	−26	0.21391	16	9.898	20
21	9.90294	− 3	0.20442	2	9.893	9.88733	− 3	0.21408	2	9.899	21
22	9.90268	− 5	0.20458	3	9.893	9.88707	− 5	0.21424	3	9.899	22
23	9.90242	− 8	0.20474	5	9.893	9.88681	− 8	0.21440	5	9.899	23
24	9.90216	−10	0.20490	6	9.893	9.88655	−10	0.21457	6	9.899	24
25	9.90190	−13	0.20506	8	9.893	9.88629	−13	0.21473	8	9.899	25
26	9.90164	−16	0.20522	10	9.893	9.88603	−16	0.21490	10	9.899	26
27	9.90138	−18	0.20537	11	9.893	9.88577	−18	0.21506	11	9.899	27
28	9.90112	−21	0.20553	13	9.893	9.88550	−21	0.21522	13	9.899	28
29	9.90086	−23	0.20569	14	9.893	9.88524	−23	0.21539	14	9.899	29
30	9.90061	−26	0.20585	16	9.894	9.88498	−26	0.21555	17	9.899	30
31	9.90035	− 3	0.20601	2	9.894	9.88472	− 3	0.21572	2	9.900	31
32	9.90009	− 5	0.20617	3	9.894	9.88446	− 5	0.21588	3	9.900	32
33	9.89983	− 8	0.20633	5	9.894	9.88420	− 8	0.21605	5	9.900	33
34	9.89957	−10	0.20649	6	9.894	9.88393	−10	0.21621	7	9.900	34
35	9.89931	−13	0.20665	8	9.894	9.88367	−13	0.21638	9	9.900	35
36	9.89905	−16	0.20681	10	9.894	9.88341	−16	0.21654	10	9.900	36
37	9.89879	−18	0.20696	11	9.894	9.88315	−18	0.21671	12	9.900	37
38	9.89853	−21	0.20712	13	9.894	9.88289	−21	0.21687	14	9.900	38
39	9.89827	−23	0.20728	14	9.894	9.88262	−23	0.21704	15	9.900	39
40	9.89801	−26	0.20744	16	9.895	9.88236	−26	0.21720	17	9.900	40
41	9.89775	− 3	0.20760	2	9.895	9.88210	− 3	0.21737	2	9.901	41
42	9.89749	− 5	0.20776	3	9.895	9.88184	− 5	0.21754	3	9.901	42
43	9.89723	− 8	0.20792	5	9.895	9.88158	− 8	0.21770	5	9.901	43
44	9.89697	−10	0.20808	6	9.895	9.88131	−10	0.21787	7	9.901	44
45	9.89671	−13	0.20824	8	9.895	9.88105	−13	0.21803	9	9.901	45
46	9.89645	−16	0.20840	10	9.895	9.88079	−16	0.21820	10	9.901	46
47	9.89619	−18	0.20856	11	9.895	9.88053	−18	0.21837	12	9.901	47
48	9.89593	−21	0.20872	13	9.895	9.88027	−21	0.21853	14	9.901	48
49	9.89567	−23	0.20889	14	9.895	9.88000	−23	0.21870	15	9.901	49
50	9.89541	−26	0.20905	16	9.896	9.87974	−26	0.21887	17	9.901	50
51	9.89515	− 3	0.20921	2	9.896	9.87948	− 3	0.21903	2	9.901	51
52	9.89489	− 5	0.20937	3	9.896	9.87922	− 5	0.21920	3	9.902	52
53	9.89463	− 8	0.20953	5	9.896	9.87895	− 8	0.21937	5	9.902	53
54	9.89437	−10	0.20969	6	9.896	9.87869	−10	0.21953	7	9.902	54
55	9.89411	−13	0.20985	8	9.896	9.87843	−13	0.21970	9	9.902	55
56	9.89385	−16	0.21001	10	9.896	9.87817	−16	0.21987	10	9.902	56
57	9.89359	−18	0.21017	11	9.896	9.87790	−18	0.22003	12	9.902	57
58	9.89333	−21	0.21033	13	9.896	9.87764	−21	0.22020	14	9.902	58
59	9.89307	−23	0.21050	14	9.896	9.87738	−23	0.22037	15	9.902	59
60	9.89281		0.21066		9.897	9.87711		0.22054		9.902	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表 K 表

Kノ符號 lトdトガ	h……	0°−90°	−180°	−270°	−360°
	同名ナルトキ	+	∼	∼	+
	異名ナルトキ	∼	+	+	∼

′	53° K_3 L. Cot.	P.P.	53° A_2 L. Sec.	P.P.	53° Z_2 L. Sin.	54° K_3 L. Cot.	P.P.	54° A_2 L. Sec.	P.P.	54° Z_2 L. Sin.	′
0	9.87711	−26	0.22054	17	9.902	9.86126	−27	0.23078	17	9.908	0
1	9.87685	−3	0.22070	2	9.902	9.86100	−3	0.23096	2	9.908	1
2	9.87659	−5	0.22087	3	9.903	9.86073	−5	0.23113	3	9.908	2
3	9.87633	−8	0.22104	5	9.903	9.86046	−8	0.23130	5	9.908	3
4	9.87606	−10	0.22121	7	9.903	9.86020	−11	0.23148	7	9.908	4
5	9.87580	−13	0.22138	9	9.903	9.85993	−14	0.23165	9	9.908	5
6	9.87554	−16	0.22154	10	9.903	9.85967	−16	0.23183	10	9.909	6
7	9.87527	−18	0.22171	12	9.903	9.85940	−19	0.23200	12	9.909	7
8	9.87501	−21	0.22188	14	9.903	9.85913	−22	0.23218	14	9.909	8
9	9.87475	−23	0.22205	15	9.903	9.85887	−24	0.23235	15	9.909	9
10	9.87448	−26	0.22222	17	9.903	9.85860	−27	0.23253	18	9.909	10
11	9.87422	−3	0.22239	2	9.903	9.85834	−3	0.23270	2	9.909	11
12	9.87396	−5	0.22256	3	9.903	9.85807	−5	0.23288	4	9.909	12
13	9.87369	−8	0.22272	5	9.904	9.85780	−8	0.23305	5	9.909	13
14	9.87343	−10	0.22289	7	9.904	9.85754	−11	0.23323	7	9.909	14
15	9.87317	−13	0.22306	9	9.904	9.85727	−14	0.23340	9	9.909	15
16	9.87290	−16	0.22323	10	9.904	9.85700	−16	0.23358	11	9.909	16
17	9.87264	−18	0.22340	12	9.904	9.85674	−19	0.23375	13	9.910	17
18	9.87238	−21	0.22357	14	9.904	9.85647	−22	0.23393	14	9.910	18
19	9.87211	−23	0.22374	15	9.904	9.85620	−24	0.23410	16	9.910	19
20	9.87185	−26	0.22391	17	9.904	9.85594	−27	0.23428	18	9.910	20
21	9.87158	−3	0.22408	2	9.904	9.85567	−3	0.23446	2	9.910	21
22	9.87132	−5	0.22425	3	9.904	9.85540	−5	0.23463	4	9.910	22
23	9.87106	−8	0.22442	5	9.905	9.85514	−8	0.23481	5	9.910	23
24	9.87079	−10	0.22459	7	9.905	9.85487	−11	0.23499	7	9.910	24
25	9.87053	−13	0.22476	9	9.905	9.85460	−14	0.23516	9	9.910	25
26	9.87027	−16	0.22493	10	9.905	9.85434	−16	0.23534	11	9.910	26
27	9.87000	−18	0.22510	12	9.905	9.85407	−19	0.23552	13	9.910	27
28	9.86974	−21	0.22527	14	9.905	9.85380	−22	0.23569	14	9.911	28
29	9.86947	−23	0.22544	15	9.905	9.85354	−24	0.23587	16	9.911	29
30	9.86921	−26	0.22561	17	9.905	9.85327	−27	0.23605	18	9.911	30
31	9.86894	−3	0.22578	2	9.905	9.85300	−3	0.23622	2	9.911	31
32	9.86868	−5	0.22595	3	9.905	9.85273	−5	0.23640	4	9.911	32
33	9.86842	−8	0.22613	5	9.905	9.85247	−8	0.23658	5	9.911	33
34	9.86815	−10	0.22630	7	9.906	9.85220	−11	0.23676	7	9.911	34
35	9.86789	−13	0.22647	9	9.906	9.85193	−14	0.23693	9	9.911	35
36	9.86762	−16	0.22664	10	9.906	9.85166	−16	0.23711	11	9.911	36
37	9.86736	−18	0.22681	12	9.906	9.85140	−19	0.23729	13	9.911	37
38	9.86709	−21	0.22698	14	9.906	9.85113	−22	0.23747	14	9.911	38
39	9.86683	−23	0.22715	15	9.906	9.85086	−24	0.23764	16	9.911	39
40	9.86656	−26	0.22732	17	9.906	9.85059	−27	0.23782	18	9.912	40
41	9.86630	−3	0.22750	2	9.906	9.85033	−3	0.23800	2	9.912	41
42	9.86603	−5	0.22767	3	9.906	9.85006	−5	0.23818	4	9.912	42
43	9.86577	−8	0.22784	5	9.906	9.84979	−8	0.23836	5	9.912	43
44	9.86551	−10	0.22801	7	9.906	9.84952	−11	0.23854	7	9.912	44
45	9.86524	−13	0.22819	9	9.907	9.84925	−14	0.23871	9	9.912	45
46	9.86498	−16	0.22836	10	9.907	9.84899	−16	0.23889	11	9.912	46
47	9.86471	−18	0.22853	12	9.907	9.84872	−19	0.23907	13	9.912	47
48	9.86445	−21	0.22870	14	9.907	9.84845	−22	0.23925	14	9.912	48
49	9.86418	−23	0.22888	15	9.907	9.84818	−24	0.23943	16	9.912	49
50	9.86392	−27	0.22905	17	9.907	9.84791	−27	0.23961	18	9.912	50
51	9.86365	−3	0.22922	2	9.907	9.84764	−3	0.23979	2	9.913	51
52	9.86338	−5	0.22939	3	9.907	9.84738	−5	0.23997	4	9.913	52
53	9.86312	−8	0.22957	5	9.907	9.84711	−8	0.24015	5	9.913	53
54	9.86285	−11	0.22974	7	9.907	9.84684	−11	0.24033	7	9.913	54
55	9.86259	−14	0.22991	9	9.907	9.84657	−14	0.24051	9	9.913	55
56	9.86232	−16	0.23009	10	9.908	9.84630	−16	0.24069	11	9.913	56
57	9.86206	−19	0.23026	12	9.908	9.84603	−19	0.24087	13	9.913	57
58	9.86179	−22	0.23043	14	9.908	9.84576	−22	0.24105	14	9.913	58
59	9.86153	−24	0.23061	15	9.908	9.84550	−24	0.24123	16	9.913	59
60	9.86126		0.23078		9.908	9.84523		0.24141		9.913	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表 K 表

Kノ符號 lトdトガ	h……	0°−90°	−180°	−270°	−360°
	同名ナルトキ	+	∼	∼	+
	異名ナルトキ	∼	+	+	∼

′	55° K_3 L. Cot.	P.P.	55° A_2 L. Sec.	P.P.	55° Z_2 L. Sin.	56° K_3 L. Cot.	P.P.	56° A_2 L. Sec.	P.P.	56° Z_2 L. Sin.	′
0	9.84523	−27	0.24141	18	9.913	9.82899	−27	0.25244	19	9.919	0
1	9.84496	−3	0.24159	2	9.913	9.82871	−3	0.25263	2	9.919	1
2	9.84469	−5	0.24177	4	9.914	9.82844	−5	0.25281	4	9.919	2
3	9.84442	−8	0.24195	5	9.914	9.82817	−8	0.25300	6	9.919	3
4	9.84415	−11	0.24213	7	9.914	9.82790	−11	0.25319	8	9.919	4
5	9.84388	−14	0.24231	9	9.914	9.82762	−14	0.25338	10	9.919	5
6	9.84361	−16	0.24249	11	9.914	9.82735	−16	0.25356	11	9.919	6
7	9.84334	−19	0.24267	13	9.914	9.82708	−19	0.25375	13	9.919	7
8	9.84307	−22	0.24286	14	9.914	9.82681	−22	0.25394	15	9.919	8
9	9.84280	−24	0.24304	16	9.914	9.82653	−24	0.25413	17	9.919	9
10	9.84254	−27	0.24322	18	9.914	9.82626	−27	0.25432	19	9.919	10
11	9.84227	−3	0.24340	2	9.914	9.82599	−3	0.25451	2	9.920	11
12	9.84200	−5	0.24358	4	9.914	9.82571	−5	0.25469	4	9.920	12
13	9.84173	−8	0.24376	5	9.915	9.82544	−8	0.25488	6	9.920	13
14	9.84146	−11	0.24395	7	9.915	9.82517	−11	0.25507	8	9.920	14
15	9.84119	−14	0.24413	9	9.915	9.82489	−14	0.25526	10	9.920	15
16	9.84092	−16	0.24431	11	9.915	9.82462	−16	0.25545	11	9.920	16
17	9.84065	−19	0.24449	13	9.915	9.82435	−19	0.25564	13	9.920	17
18	9.84038	−22	0.24467	14	9.915	9.82407	−22	0.25583	15	9.920	18
19	9.84011	−24	0.24486	16	9.915	9.82380	−24	0.25602	17	9.920	19
20	9.83984	−27	0.24504	18	9.915	9.82352	−27	0.25621	19	9.920	20
21	9.83957	−3	0.24522	2	9.915	9.82325	−3	0.25640	2	9.920	21
22	9.83930	−5	0.24541	4	9.915	9.82298	−5	0.25659	4	9.920	22
23	9.83903	−8	0.24559	5	9.915	9.82270	−8	0.25678	6	9.921	23
24	9.83876	−11	0.24577	7	9.915	9.82243	−11	0.25697	8	9.921	24
25	9.83849	−14	0.24595	9	9.916	9.82215	−14	0.25716	10	9.921	25
26	9.83822	−16	0.24614	11	9.916	9.82188	−16	0.25735	11	9.921	26
27	9.83795	−19	0.24632	13	9.916	9.82161	−19	0.25754	13	9.921	27
28	9.83768	−22	0.24650	14	9.916	9.82133	−22	0.25773	15	9.921	28
29	9.83740	−24	0.24669	16	9.916	9.82106	−24	0.25792	17	9.921	29
30	9.83713	−27	0.24687	18	9.916	9.82078	−27	0.25811	19	9.921	30
31	9.83686	−3	0.24706	2	9.916	9.82051	−3	0.25830	2	9.921	31
32	9.83659	−5	0.24724	4	9.916	9.82023	−5	0.25849	4	9.921	32
33	9.83632	−8	0.24742	5	9.916	9.81996	−8	0.25868	6	9.921	33
34	9.83605	−11	0.24761	7	9.916	9.81968	−11	0.25887	8	9.921	34
35	9.83578	−14	0.24779	9	9.916	9.81941	−14	0.25907	10	9.922	35
36	9.83551	−16	0.24798	11	9.917	9.81913	−16	0.25926	11	9.922	36
37	9.83524	−19	0.24816	13	9.917	9.81886	−19	0.25945	13	9.922	37
38	9.83497	−22	0.24835	14	9.917	9.81858	−22	0.25964	15	9.922	38
39	9.83470	−24	0.24853	16	9.917	9.81831	−24	0.25983	17	9.922	39
40	9.83442	−27	0.24872	19	9.917	9.81803	−28	0.26003	19	9.922	40
41	9.83415	−3	0.24890	2	9.917	9.81776	−3	0.26022	2	9.922	41
42	9.83388	−5	0.24909	4	9.917	9.81748	−6	0.26041	4	9.922	42
43	9.83361	−8	0.24927	6	9.917	9.81721	−8	0.26060	6	9.922	43
44	9.83334	−11	0.24946	8	9.917	9.81693	−11	0.26079	8	9.922	44
45	9.83307	−14	0.24964	10	9.917	9.81666	−14	0.26099	10	9.922	45
46	9.83280	−16	0.24983	11	9.917	9.81638	−17	0.26118	11	9.922	46
47	9.83252	−19	0.25001	13	9.917	9.81611	−20	0.26137	13	9.923	47
48	9.83225	−22	0.25020	15	9.918	9.81583	−22	0.26157	15	9.923	48
49	9.83198	−24	0.25039	17	9.918	9.81556	−25	0.26176	17	9.923	49
50	9.83171	−27	0.25057	19	9.918	9.81528	−28	0.26195	19	9.923	50
51	9.83144	−3	0.25076	2	9.918	9.81500	−3	0.26215	2	9.923	51
52	9.83117	−5	0.25094	4	9.918	9.81473	−6	0.26234	4	9.923	52
53	9.83089	−8	0.25113	6	9.918	9.81445	−8	0.26253	6	9.923	53
54	9.83062	−11	0.25132	8	9.918	9.81418	−11	0.26273	8	9.923	54
55	9.83035	−14	0.25150	10	9.918	9.81390	−14	0.26292	10	9.923	55
56	9.83008	−16	0.25169	11	9.918	9.81362	−17	0.26311	11	9.923	56
57	9.82980	−19	0.25188	13	9.918	9.81335	−20	0.26331	13	9.923	57
58	9.82953	−22	0.25206	15	9.918	9.81307	−22	0.26350	15	9.923	58
59	9.82926	−24	0.25225	17	9.918	9.81279	−25	0.26370	17	9.924	59
60	9.82899		0.25244		9.919	9.81252		0.26389		9.924	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表 *K* 表

Kノ符號 lトdトガ	h……0°	−90°	−180°	−270°	−360°
同名ナルトキ	+	∼	∼	+	
異名ナルトキ	∼	+	+	∼	

′	57° K_3 L. Cot.	P.P.	57° A_2 L. Sec.	P.P.	57° Z_2 L. Sin.	58° K_3 L. Cot.	P.P.	58° A_2 L. Sec.	P.P.	58° Z_2 L. Sin.	′
0	9.81252	-28	0.26389	20	9.924	9.79579	-28	0.27579	20	9.928	0
1	9.81224	- 3	0.26409	2	9.924	9.79551	- 3	0.27599	2	9.928	1
2	9.81196	- 6	0.26428	4	9.924	9.79523	- 6	0.27619	4	9.929	2
3	9.81169	- 8	0.26448	6	9.924	9.79495	- 8	0.27640	6	9.929	3
4	9.81141	-11	0.26467	8	9.924	9.79466	-11	0.27660	8	9.929	4
5	9.81113	-14	0.26487	10	9.924	9.79438	-14	0.27680	10	9.929	5
6	9.81086	-17	0.26506	12	9.924	9.79410	-17	0.27701	12	9.929	6
7	9.81058	-20	0.26526	14	9.924	9.79382	-20	0.27721	14	9.929	7
8	9.81030	-22	0.26545	16	9.924	9.79354	-22	0.27741	16	9.929	8
9	9.81003	-25	0.26565	18	9.924	9.79326	-25	0.27762	18	9.929	9
10	9.80975	-28	0.26584	20	9.924	9.79297	-28	0.27782	20	9.929	10
11	9.80947	- 3	0.26604	2	9.924	9.79269	- 3	0.27802	2	9.929	11
12	9.80919	- 6	0.26623	4	9.925	9.79241	- 6	0.27823	4	9.929	12
13	9.80892	- 8	0.26643	6	9.925	9.79213	- 8	0.27843	6	9.929	13
14	9.80864	-11	0.26663	8	9.925	9.79185	-11	0.27863	8	9.930	14
15	9.80836	-14	0.26682	10	9.925	9.79156	-14	0.27884	10	9.930	15
16	9.80808	-17	0.26702	12	9.925	9.79128	-17	0.27904	12	9.930	16
17	9.80781	-20	0.26722	14	9.925	9.79100	-20	0.27925	14	9.930	17
18	9.80753	-22	0.26741	16	9.925	9.79072	-22	0.27945	16	9.930	18
19	9.80725	-25	0.26761	18	9.925	9.79043	-25	0.27966	18	9.930	19
20	9.80697	-28	0.26781	20	9.925	9.79015	-28	0.27986	21	9.930	20
21	9.80669	- 3	0.26800	2	9.925	9.78987	- 3	0.28006	2	9.930	21
22	9.80642	- 6	0.26820	4	9.925	9.78959	- 6	0.28027	4	9.930	22
23	9.80614	- 8	0.26840	6	9.925	9.78930	- 8	0.28048	6	9.930	23
24	9.80586	-11	0.26860	8	9.926	9.78902	-11	0.28068	8	9.930	24
25	9.80558	-14	0.26879	10	9.926	9.78874	-14	0.28089	11	9.930	25
26	9.80530	-17	0.26899	12	9.926	9.78845	-17	0.28109	13	9.930	26
27	9.80502	-20	0.26919	14	9.926	9.78817	-20	0.28130	15	9.931	27
28	9.80474	-22	0.26939	16	9.926	9.78789	-22	0.28150	17	9.931	28
29	9.80447	-25	0.26959	18	9.926	9.78760	-25	0.28171	19	9.931	29
30	9.80419	-28	0.26978	20	9.926	9.78732	-28	0.28191	21	9.931	30
31	9.80391	- 3	0.26998	2	9.926	9.78704	- 3	0.28212	2	9.931	31
32	9.80363	- 6	0.27018	4	9.926	9.78675	- 6	0.28233	4	9.931	32
33	9.80335	- 8	0.27038	6	9.926	9.78647	- 8	0.28253	6	9.931	33
34	9.80307	-11	0.27058	8	9.926	9.78618	-11	0.28274	8	9.931	34
35	9.80279	-14	0.27078	10	9.926	9.78590	-14	0.28295	11	9.931	35
36	9.80251	-17	0.27098	12	9.927	9.78562	-17	0.28315	13	9.931	36
37	9.80223	-20	0.27117	14	9.927	9.78533	-20	0.28336	15	9.931	37
38	9.80195	-22	0.27137	16	9.927	9.78505	-22	0.28357	17	9.931	38
39	9.80168	-25	0.27157	18	9.927	9.78476	-25	0.28378	19	9.931	39
40	9.80140	-28	0.27177	20	9.927	9.78448	-28	0.28398	21	9.932	40
41	9.80112	- 3	0.27197	2	9.927	9.78419	- 3	0.28419	2	9.932	41
42	9.80084	- 6	0.27217	4	9.927	9.78391	- 6	0.28440	4	9.932	42
43	9.80056	- 8	0.27237	6	9.927	9.78363	- 8	0.28461	6	9.932	43
44	9.80028	-11	0.27257	8	9.927	9.78334	-11	0.28481	8	9.932	44
45	9.80000	-14	0.27277	10	9.927	9.78306	-14	0.28502	11	9.932	45
46	9.79972	-17	0.27297	12	9.927	9.78277	-17	0.28523	13	9.932	46
47	9.79944	-20	0.27317	14	9.927	9.78249	-20	0.28544	15	9.932	47
48	9.79916	-22	0.27337	16	9.927	9.78220	-22	0.28565	17	9.932	48
49	9.79888	-25	0.27357	18	9.928	9.78192	-25	0.28586	19	9.932	49
50	9.79860	-28	0.27378	20	9.928	9.78163	-29	0.28607	21	9.932	50
51	9.79832	- 3	0.27398	2	9.928	9.78135	- 3	0.28627	2	9.932	51
52	9.79804	- 6	0.27418	4	9.928	9.78106	- 6	0.28648	4	9.932	52
53	9.79776	- 8	0.27438	6	9.928	9.78077	- 9	0.28669	6	9.933	53
54	9.79747	-11	0.27458	8	9.928	9.78049	-12	0.28690	8	9.933	54
55	9.79719	-14	0.27478	10	9.928	9.78020	-15	0.28711	11	9.933	55
56	9.79691	-17	0.27498	12	9.928	9.77992	-17	0.28732	13	9.933	56
57	9.79663	-20	0.27518	14	9.928	9.77963	-20	0.28753	15	9.933	57
58	9.79635	-22	0.27539	16	9.928	9.77935	-23	0.28774	17	9.933	58
59	9.79607	-25	0.27559	18	9.928	9.77906	-26	0.28795	19	9.933	59
60	9.79579		0.27579		9.928	9.77877		0.28816		9.933	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

Kノ符號 lトdトガ	h……0°	−90°	−180°	−270°	−360°
同名ナルトキ	+	∼	∼	+	
異名ナルトキ	∼	+	+	∼	

′	59° K_3 L. Cot.	P.P.	59° A_2 L. Sec.	P.P.	59° Z_2 L. Sin.	60° K_3 L. Cot.	P.P.	60° A_2 L. Sec.	P.P.	60° Z_2 L. Sin.	′
0	9.77877	-29	0.28816	21	9.933	9.76144	-29	0.30103	22	9.938	0
1	9.77849	- 3	0.28837	2	9.933	9.76115	- 3	0.30125	2	9.938	1
2	9.77820	- 6	0.28858	4	9.933	9.76086	- 6	0.30147	4	9.938	2
3	9.77791	- 9	0.28879	6	9.933	9.76056	- 9	0.30169	7	9.938	3
4	9.77763	-12	0.28900	8	9.933	9.76027	-12	0.30191	9	9.938	4
5	9.77734	-15	0.28921	11	9.933	9.75998	-15	0.30213	11	9.938	5
6	9.77706	-17	0.28942	13	9.934	9.75969	-17	0.30235	13	9.938	6
7	9.77677	-20	0.28964	15	9.934	9.75939	-20	0.30257	15	9.938	7
8	9.77648	-23	0.28985	17	9.934	9.75910	-23	0.30279	18	9.938	8
9	9.77619	-26	0.29006	19	9.934	9.75881	-26	0.30301	20	9.938	9
10	9.77591	-29	0.29027	21	9.934	9.75852	-29	0.30323	22	9.938	10
11	9.77562	- 3	0.29048	2	9.934	9.75822	- 3	0.30345	2	9.938	11
12	9.77533	- 6	0.29069	4	9.934	9.75793	- 6	0.30367	4	9.938	12
13	9.77505	- 9	0.29091	6	9.934	9.75764	- 9	0.30389	7	9.938	13
14	9.77476	-12	0.29112	8	9.934	9.75735	-12	0.30411	9	9.939	14
15	9.77447	-15	0.29133	11	9.934	9.75705	-15	0.30433	11	9.939	15
16	9.77418	-17	0.29154	13	9.934	9.75676	-17	0.30455	13	9.939	16
17	9.77390	-20	0.29176	15	9.934	9.75647	-20	0.30477	15	9.939	17
18	9.77361	-23	0.29197	17	9.934	9.75617	-23	0.30499	18	9.939	18
19	9.77332	-26	0.29218	19	9.934	9.75588	-26	0.30521	20	9.939	19
20	9.77303	-29	0.29239	21	9.935	9.75558	-29	0.30544	22	9.939	20
21	9.77274	- 3	0.29261	2	9.935	9.75529	- 3	0.30566	2	9.939	21
22	9.77246	- 6	0.29282	4	9.935	9.75500	- 6	0.30588	4	9.939	22
23	9.77217	- 9	0.29303	6	9.935	9.75470	- 9	0.30610	7	9.939	23
24	9.77188	-12	0.29325	8	9.935	9.75441	-12	0.30632	9	9.939	24
25	9.77159	-15	0.29346	11	9.935	9.75411	-15	0.30655	11	9.939	25
26	9.77130	-17	0.29367	13	9.935	9.75382	-17	0.30677	13	9.939	26
27	9.77101	-20	0.29389	15	9.935	9.75353	-20	0.30699	15	9.939	27
28	9.77073	-23	0.29410	17	9.935	9.75323	-23	0.30721	18	9.940	28
29	9.77044	-26	0.29432	19	9.935	9.75294	-26	0.30744	20	9.940	29
30	9.77015	-29	0.29453	22	9.935	9.75264	-30	0.30766	22	9.940	30
31	9.76986	- 3	0.29475	2	9.935	9.75235	- 3	0.30788	2	9.940	31
32	9.76957	- 6	0.29496	4	9.935	9.75205	- 6	0.30811	4	9.940	32
33	9.76928	- 9	0.29518	7	9.936	9.75176	- 9	0.30833	7	9.940	33
34	9.76899	-12	0.29539	9	9.936	9.75146	-12	0.30856	9	9.940	34
35	9.76870	-15	0.29561	11	9.936	9.75117	-15	0.30878	11	9.940	35
36	9.76841	-17	0.29582	13	9.936	9.75087	-18	0.30900	13	9.940	36
37	9.76812	-20	0.29604	15	9.936	9.75058	-21	0.30923	15	9.940	37
38	9.76783	-23	0.29625	18	9.936	9.75028	-24	0.30945	18	9.940	38
39	9.76754	-26	0.29647	20	9.936	9.74998	-27	0.30968	20	9.940	39
40	9.76725	-29	0.29668	22	9.936	9.74969	-30	0.30990	23	9.940	40
41	9.76697	- 3	0.29690	2	9.936	9.74939	- 3	0.31013	2	9.940	41
42	9.76668	- 6	0.29712	4	9.936	9.74910	- 6	0.31035	5	9.941	42
43	9.76639	- 9	0.29733	7	9.936	9.74880	- 9	0.31058	7	9.941	43
44	9.76609	-12	0.29755	9	9.936	9.74851	-12	0.31080	9	9.941	44
45	9.76580	-15	0.29776	11	9.936	9.74821	-15	0.31103	12	9.941	45
46	9.76551	-17	0.29798	13	9.937	9.74791	-18	0.31125	14	9.941	46
47	9.76522	-20	0.29820	15	9.937	9.74762	-21	0.31148	16	9.941	47
48	9.76493	-23	0.29841	18	9.937	9.74732	-24	0.31171	18	9.941	48
49	9.76464	-26	0.29863	20	9.937	9.74702	-27	0.31193	21	9.941	49
50	9.76435	-29	0.29885	22	9.937	9.74673	-30	0.31216	23	9.941	50
51	9.76406	- 3	0.29907	2	9.937	9.74643	- 3	0.31238	2	9.941	51
52	9.76377	- 6	0.29928	4	9.937	9.74613	- 6	0.31261	5	9.941	52
53	9.76348	- 9	0.29950	7	9.937	9.74583	- 9	0.31284	7	9.941	53
54	9.76319	-12	0.29972	9	9.937	9.74554	-12	0.31306	9	9.941	54
55	9.76290	-15	0.29994	11	9.937	9.74524	-15	0.31329	12	9.941	55
56	9.76261	-17	0.30016	13	9.937	9.74494	-18	0.31352	14	9.942	56
57	9.76231	-20	0.30037	15	9.937	9.74465	-21	0.31375	16	9.942	57
58	9.76202	-23	0.30059	18	9.937	9.74435	-24	0.31397	18	9.942	58
59	9.76173	-26	0.30081	20	9.937	9.74405	-27	0.31420	21	9.942	59
60	9.76144		0.30103		9.938	9.74375		0.31443		9.942	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

*K*ノ符號 *l*ト*d*トガ	*h*………	0°	−90°	−180°	−270°	−360°
	同名ナルトキ	+	～	～	+	
	異名ナルトキ	～	+	+	～	

′	61°					62°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.74375	−30	0.31443	23	9.942	9.72567	−31	0.32839	24	9.946	0
1	9.74345	−3	0.31466	2	9.942	9.72537	−3	0.32863	2	9.946	1
2	9.74316	−6	0.31488	5	9.942	9.72506	−6	0.32887	5	9.946	2
3	9.74286	−9	0.31511	7	9.942	9.72476	−9	0.32910	7	9.946	3
4	9.74256	−12	0.31534	9	9.942	9.72445	−12	0.32934	10	9.946	4
5	9.74226	−15	0.31557	12	9.942	9.72415	−16	0.32958	12	9.946	5
6	9.74196	−18	0.31580	14	9.942	9.72384	−19	0.32982	14	9.946	6
7	9.74166	−21	0.31603	16	9.942	9.72354	−22	0.33006	17	9.946	7
8	9.74137	−24	0.31626	18	9.942	9.72323	−25	0.33030	19	9.946	8
9	9.74107	−27	0.31649	21	9.942	9.72293	−28	0.33054	22	9.947	9
10	9.74077	−30	0.31672	23	9.943	9.72262	−31	0.33078	24	9.947	10
11	9.74047	−3	0.31695	2	9.943	9.72231	−3	0.33101	2	9.947	11
12	9.74017	−6	0.31717	5	9.943	9.72201	−6	0.33125	5	9.947	12
13	9.73987	−9	0.31740	7	9.943	9.72170	−9	0.33149	7	9.947	13
14	9.73957	−12	0.31763	9	9.943	9.72140	−12	0.33173	10	9.947	14
15	9.73927	−15	0.31787	12	9.943	9.72109	−16	0.33197	12	9.947	15
16	9.73897	−18	0.31810	14	9.943	9.72078	−19	0.33221	14	9.947	16
17	9.73867	−21	0.31833	16	9.943	9.72048	−22	0.33245	17	9.947	17
18	9.73837	−24	0.31856	18	9.943	9.72017	−25	0.33269	19	9.947	18
19	9.73807	−27	0.31879	21	9.943	9.71986	−28	0.33294	22	9.947	19
20	9.73777	−30	0.31902	23	9.943	9.71955	−31	0.33318	24	9.947	20
21	9.73747	−3	0.31925	2	9.943	9.71925	−3	0.33342	2	9.947	21
22	9.73717	−6	0.31948	5	9.943	9.71894	−6	0.33366	5	9.947	22
23	9.73687	−9	0.31971	7	9.943	9.71863	−9	0.33390	7	9.947	23
24	9.73657	−12	0.31994	9	9.943	9.71833	−12	0.33414	10	9.948	24
25	9.73627	−15	0.32018	12	9.944	9.71802	−16	0.33438	12	9.948	25
26	9.73597	−18	0.32041	14	9.944	9.71771	−19	0.33463	14	9.948	26
27	9.73567	−21	0.32064	16	9.944	9.71740	−22	0.33487	17	9.948	27
28	9.73537	−24	0.32087	18	9.944	9.71709	−25	0.33511	19	9.948	28
29	9.73507	−27	0.32110	21	9.944	9.71679	−28	0.33535	22	9.948	29
30	9.73476	−30	0.32134	23	9.944	9.71648	−31	0.33559	24	9.948	30
31	9.73446	−3	0.32157	2	9.944	9.71617	−3	0.33584	2	9.948	31
32	9.73416	−6	0.32180	5	9.944	9.71586	−6	0.33608	5	9.948	32
33	9.73386	−9	0.32204	7	9.944	9.71555	−9	0.33632	7	9.948	33
34	9.73356	−12	0.32227	9	9.944	9.71524	−12	0.33657	10	9.948	34
35	9.73326	−15	0.32250	12	9.944	9.71493	−16	0.33681	12	9.948	35
36	9.73295	−18	0.32274	14	9.944	9.71462	−19	0.33705	14	9.948	36
37	9.73265	−21	0.32297	16	9.944	9.71431	−22	0.33730	17	9.948	37
38	9.73235	−24	0.32320	18	9.944	9.71401	−25	0.33754	19	9.948	38
39	9.73205	−27	0.32344	21	9.945	9.71370	−28	0.33779	22	9.949	39
40	9.73175	−30	0.32367	24	9.945	9.71339	−31	0.33803	25	9.949	40
41	9.73144	−3	0.32391	2	9.945	9.71308	−3	0.33827	3	9.949	41
42	9.73114	−6	0.32414	5	9.945	9.71277	−6	0.33852	5	9.949	42
43	9.73084	−9	0.32438	7	9.945	9.71246	−9	0.33876	8	9.949	43
44	9.73054	−12	0.32461	10	9.945	9.71215	−12	0.33901	10	9.949	44
45	9.73023	−15	0.32485	12	9.945	9.71184	−16	0.33925	13	9.949	45
46	9.72993	−18	0.32508	14	9.945	9.71153	−19	0.33950	15	9.949	46
47	9.72963	−21	0.32532	17	9.945	9.71121	−22	0.33975	18	9.949	47
48	9.72932	−24	0.32555	19	9.945	9.71090	−25	0.33999	20	9.949	48
49	9.72902	−27	0.32579	22	9.945	9.71059	−28	0.34024	23	9.949	49
50	9.72872	−30	0.32602	24	9.945	9.71028	−31	0.34048	25	9.949	50
51	9.72841	−3	0.32626	2	9.945	9.70997	−3	0.34073	3	9.949	51
52	9.72811	−6	0.32650	5	9.945	9.70966	−6	0.34098	5	9.949	52
53	9.72780	−9	0.32673	7	9.945	9.70935	−9	0.34122	8	9.949	53
54	9.72750	−12	0.32697	10	9.946	9.70904	−12	0.34147	10	9.949	54
55	9.72720	−15	0.32720	12	9.946	9.70873	−16	0.34172	13	9.950	55
56	9.72689	−18	0.32744	14	9.946	9.70841	−19	0.34196	15	9.950	56
57	9.72659	−21	0.32768	17	9.946	9.70810	−22	0.34221	18	9.950	57
58	9.72628	−24	0.32792	19	9.946	9.70779	−25	0.34246	20	9.950	58
59	9.72598	−27	0.32815	22	9.946	9.70748	−28	0.34271	23	9.950	59
60	9.72567		0.32839		9.946	9.70717		0.34295		9.950	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

*K*ノ符號 *l*ト*d*トガ	*h*………	0°	−90°	−180°	−270°	−360°
	同名ナルトキ	+	～	～	+	
	異名ナルトキ	～	+	+	～	

′	63°					64°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.70717	−31	0.34295	25	9.950	9.68818	−32	0.35816	26	9.954	0
1	9.70685	−3	0.34320	3	9.950	9.68786	−3	0.35842	3	9.954	1
2	9.70654	−6	0.34345	5	9.950	9.68754	−6	0.35868	5	9.954	2
3	9.70623	−9	0.34370	8	9.950	9.68722	−10	0.35894	8	9.954	3
4	9.70592	−12	0.34395	10	9.950	9.68690	−13	0.35920	10	9.954	4
5	9.70560	−16	0.34420	13	9.950	9.68658	−16	0.35946	13	9.954	5
6	9.70529	−19	0.34444	15	9.950	9.68626	−19	0.35972	16	9.954	6
7	9.70498	−22	0.34469	18	9.950	9.68593	−22	0.35998	18	9.954	7
8	9.70466	−25	0.34494	20	9.950	9.68561	−26	0.36024	21	9.954	8
9	9.70435	−28	0.34519	23	9.950	9.68529	−29	0.36050	23	9.954	9
10	9.70404	−31	0.34544	25	9.951	9.68497	−32	0.36076	26	9.954	10
11	9.70372	−3	0.34569	3	9.951	9.68465	−3	0.36102	3	9.954	11
12	9.70341	−6	0.34594	5	9.951	9.68432	−6	0.36128	5	9.954	12
13	9.70309	−9	0.34619	8	9.951	9.68400	−10	0.36154	8	9.954	13
14	9.70278	−12	0.34644	10	9.951	9.68368	−13	0.36180	10	9.955	14
15	9.70247	−16	0.34669	13	9.951	9.68336	−16	0.36206	13	9.955	15
16	9.70215	−19	0.34694	15	9.951	9.68303	−19	0.36233	16	9.955	16
17	9.70184	−22	0.34719	18	9.951	9.68271	−22	0.36259	18	9.955	17
18	9.70152	−25	0.34745	20	9.951	9.68239	−26	0.36285	21	9.955	18
19	9.70121	−28	0.34770	23	9.951	9.68206	−29	0.36311	23	9.955	19
20	9.70089	−32	0.34795	25	9.951	9.68174	−32	0.36338	26	9.955	20
21	9.70058	−3	0.34820	3	9.951	9.68142	−3	0.36364	3	9.955	21
22	9.70026	−6	0.34845	5	9.951	9.68109	−6	0.36390	5	9.955	22
23	9.69995	−10	0.34870	8	9.951	9.68077	−10	0.36417	8	9.955	23
24	9.69963	−13	0.34896	10	9.951	9.68044	−13	0.36443	10	9.955	24
25	9.69932	−16	0.34921	13	9.951	9.68012	−16	0.36469	13	9.955	25
26	9.69900	−19	0.34946	15	9.952	9.67980	−19	0.36496	16	9.955	26
27	9.69868	−22	0.34971	18	9.952	9.67947	−22	0.36522	18	9.955	27
28	9.69837	−26	0.34997	20	9.952	9.67915	−26	0.36549	21	9.955	28
29	9.69805	−29	0.35022	23	9.952	9.67882	−29	0.36575	23	9.955	29
30	9.69774	−32	0.35047	25	9.952	9.67850	−33	0.36602	27	9.955	30
31	9.69742	−3	0.35073	3	9.952	9.67817	−3	0.36628	3	9.956	31
32	9.69710	−6	0.35098	5	9.952	9.67785	−7	0.36655	5	9.956	32
33	9.69679	−10	0.35123	8	9.952	9.67752	−10	0.36681	8	9.956	33
34	9.69647	−13	0.35149	10	9.952	9.67719	−13	0.36708	11	9.956	34
35	9.69615	−16	0.35174	13	9.952	9.67687	−17	0.36734	14	9.956	35
36	9.69584	−19	0.35200	15	9.952	9.67654	−20	0.36761	16	9.956	36
37	9.69552	−22	0.35225	18	9.952	9.67622	−23	0.36787	19	9.956	37
38	9.69520	−26	0.35251	20	9.952	9.67589	−26	0.36814	22	9.956	38
39	9.69488	−29	0.35276	23	9.952	9.67556	−30	0.36841	24	9.956	39
40	9.69457	−32	0.35302	26	9.952	9.67524	−33	0.36867	27	9.956	40
41	9.69425	−3	0.35327	3	9.952	9.67491	−3	0.36894	3	9.956	41
42	9.69393	−6	0.35353	5	9.953	9.67458	−7	0.36921	5	9.956	42
43	9.69361	−10	0.35378	8	9.953	9.67426	−10	0.36948	8	9.956	43
44	9.69329	−13	0.35404	10	9.953	9.67393	−13	0.36974	11	9.956	44
45	9.69298	−16	0.35429	13	9.953	9.67360	−17	0.37001	14	9.956	45
46	9.69266	−19	0.35455	16	9.953	9.67327	−20	0.37028	16	9.956	46
47	9.69234	−22	0.35481	18	9.953	9.67295	−23	0.37055	19	9.957	47
48	9.69202	−26	0.35506	21	9.953	9.67262	−26	0.37082	22	9.957	48
49	9.69170	−29	0.35532	23	9.953	9.67229	−30	0.37108	24	9.957	49
50	9.69138	−32	0.35558	26	9.953	9.67196	−33	0.37135	27	9.957	50
51	9.69106	−3	0.35583	3	9.953	9.67163	−3	0.37162	3	9.957	51
52	9.69074	−6	0.35609	5	9.953	9.67131	−7	0.37189	5	9.957	52
53	9.69042	−10	0.35635	8	9.953	9.67098	−10	0.37216	8	9.957	53
54	9.69010	−13	0.35661	10	9.953	9.67065	−13	0.37243	11	9.957	54
55	9.68978	−16	0.35687	13	9.953	9.67032	−17	0.37270	14	9.957	55
56	9.68946	−19	0.35712	16	9.953	9.66999	−20	0.37297	16	9.957	56
57	9.68914	−22	0.35738	18	9.953	9.66966	−23	0.37324	19	9.957	57
58	9.68882	−25	0.35764	21	9.954	9.66933	−26	0.37351	22	9.957	58
59	9.68850	−29	0.35790	23	9.954	9.66900	−30	0.37378	24	9.957	59
60	9.68818		0.35816		9.954	9.66867		0.37405		9.957	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表 *K* 表

Kノ符號 lトdトガ	h	0°	90°	180°	270°	360°
同名ナルトキ		+	～	～	+	
異名ナルトキ		～	+	+	～	

′	65° K_3 L. Cot.	P.P.	65° A_2 L. Sec.	P.P.	65° Z_2 L. Sin.	66° K_3 L. Cot.	P.P.	66° A_2 L. Sec.	P.P.	66° Z_2 L. Sin.	′
0	9.66867	−33	0.37405	27	9.957	9.64858	−34	0.39069	28	9.961	0
1	9.66834	−3	0.37432	3	9.957	9.64824	−3	0.39097	3	9.961	1
2	9.66801	−7	0.37459	5	9.957	9.64790	−7	0.39125	6	9.961	2
3	9.66768	−10	0.37487	8	9.957	9.64756	−10	0.39154	8	9.961	3
4	9.66735	−13	0.37514	11	9.958	9.64722	−14	0.39182	11	9.961	4
5	9.66702	−17	0.37541	14	9.958	9.64688	−17	0.39211	14	9.961	5
6	9.66669	−20	0.37568	16	9.958	9.64654	−20	0.39239	17	9.961	6
7	9.66636	−23	0.37595	19	9.958	9.64620	−24	0.39268	20	9.961	7
8	9.66603	−26	0.37623	22	9.958	9.64586	−27	0.39296	22	9.961	8
9	9.66570	−30	0.37650	24	9.958	9.64552	−31	0.39325	25	9.961	9
10	9.66537	−33	0.37677	27	9.958	9.64517	−34	0.39354	29	9.961	10
11	9.66503	−3	0.37704	3	9.958	9.64483	−3	0.39382	3	9.961	11
12	9.66470	−7	0.37732	5	9.958	9.64449	−7	0.39411	6	9.961	12
13	9.66437	−10	0.37759	8	9.958	9.64415	−10	0.39439	9	9.961	13
14	9.66404	−13	0.37786	11	9.958	9.64381	−14	0.39468	12	9.962	14
15	9.66371	−17	0.37814	14	9.958	9.64346	−17	0.39497	15	9.962	15
16	9.66337	−20	0.37841	16	9.958	9.64312	−20	0.39526	17	9.962	16
17	9.66304	−23	0.37869	19	9.958	9.64278	−24	0.39554	20	9.962	17
18	9.66271	−26	0.37896	22	9.958	9.64243	−27	0.39583	23	9.962	18
19	9.66238	−30	0.37924	24	9.958	9.64209	−31	0.39612	26	9.962	19
20	9.66204	−33	0.37951	28	9.958	9.64175	−34	0.39641	29	9.962	20
21	9.66171	−3	0.37979	3	9.959	9.64140	−3	0.39669	3	9.962	21
22	9.66138	−7	0.38006	6	9.959	9.64106	−7	0.39698	6	9.962	22
23	9.66104	−10	0.38034	8	9.959	9.64072	−10	0.39727	9	9.962	23
24	9.66071	−13	0.38061	11	9.959	9.64037	−14	0.39756	12	9.962	24
25	9.66038	−17	0.38089	14	9.959	9.64003	−17	0.39785	15	9.962	25
26	9.66004	−20	0.38117	17	9.959	9.63968	−20	0.39814	17	9.962	26
27	9.65971	−23	0.38144	20	9.959	9.63934	−24	0.39843	20	9.962	27
28	9.65937	−26	0.38172	22	9.959	9.63899	−27	0.39872	23	9.962	28
29	9.65904	−30	0.38200	25	9.959	9.63865	−31	0.39901	26	9.962	29
30	9.65870	−34	0.38227	28	9.959	9.63830	−35	0.39930	29	9.962	30
31	9.65837	−3	0.38255	3	9.959	9.63796	−4	0.39959	3	9.962	31
32	9.65803	−7	0.38283	6	9.959	9.63761	−7	0.39988	6	9.963	32
33	9.65770	−10	0.38311	8	9.959	9.63726	−11	0.40017	9	9.963	33
34	9.65736	−14	0.38338	11	9.959	9.63692	−14	0.40046	12	9.963	34
35	9.65703	−17	0.38366	14	9.959	9.63657	−18	0.40076	15	9.963	35
36	9.65669	−20	0.38394	17	9.959	9.63623	−21	0.40105	17	9.963	36
37	9.65636	−24	0.38422	20	9.959	9.63588	−25	0.40134	20	9.963	37
38	9.65602	−27	0.38450	22	9.959	9.63553	−28	0.40163	23	9.963	38
39	9.65568	−31	0.38478	25	9.960	9.63519	−32	0.40192	26	9.963	39
40	9.65535	−34	0.38506	28	9.960	9.63484	−35	0.40222	29	9.963	40
41	9.65501	−3	0.38534	3	9.960	9.63449	−4	0.40251	3	9.963	41
42	9.65467	−7	0.38562	6	9.960	9.63414	−7	0.40280	6	9.963	42
43	9.65434	−10	0.38589	8	9.960	9.63379	−11	0.40310	9	9.963	43
44	9.65400	−14	0.38618	11	9.960	9.63345	−14	0.40339	12	9.963	44
45	9.65366	−17	0.38646	14	9.960	9.63310	−18	0.40368	15	9.963	45
46	9.65333	−20	0.38674	17	9.960	9.63275	−21	0.40398	17	9.963	46
47	9.65299	−24	0.38702	20	9.960	9.63240	−25	0.40427	20	9.963	47
48	9.65265	−27	0.38730	22	9.960	9.63205	−28	0.40457	23	9.963	48
49	9.65231	−31	0.38758	25	9.960	9.63170	−32	0.40486	26	9.963	49
50	9.65197	−34	0.38786	28	9.960	9.63135	−35	0.40516	30	9.963	50
51	9.65164	−3	0.38814	3	9.960	9.63101	−4	0.40545	3	9.964	51
52	9.65130	−7	0.38842	6	9.960	9.63066	−7	0.40575	6	9.964	52
53	9.65096	−10	0.38871	8	9.960	9.63031	−11	0.40604	9	9.964	53
54	9.65062	−14	0.38899	11	9.960	9.62996	−14	0.40634	12	9.964	54
55	9.65028	−17	0.38927	14	9.960	9.62961	−18	0.40664	15	9.964	55
56	9.64994	−20	0.38955	17	9.961	9.62926	−21	0.40693	18	9.964	56
57	9.64960	−24	0.38984	20	9.961	9.62890	−25	0.40723	21	9.964	57
58	9.64926	−27	0.39012	22	9.961	9.62855	−28	0.40753	24	9.964	58
59	9.64892	−31	0.39040	25	9.961	9.62820	−32	0.40782	27	9.964	59
60	9.64858		0.39069		9.961	9.62785		0.40812		9.964	60

$K_1 + K_2 = K_3 \to K \to A_2, Z_2$

高度及方位角計算表 *K* 表

Kノ符號 lトdトガ	h	0°	90°	180°	270°	360°
同名ナルトキ		+	～	～	+	
異名ナルトキ		～	+	+	～	

′	67° K_3 L. Cot.	P.P.	67° A_2 L. Sec.	P.P.	67° Z_2 L. Sin.	68° K_3 L. Cot.	P.P.	68° A_2 L. Sec.	P.P.	68° Z_2 L. Sin.	′
0	9.62785	−35	0.40812	30	9.964	9.60641	−36	0.42642	31	9.967	0
1	9.62750	−4	0.40842	3	9.964	9.60605	−4	0.42674	3	9.967	1
2	9.62715	−7	0.40872	6	9.964	9.60568	−7	0.42705	6	9.967	2
3	9.62680	−11	0.40902	9	9.964	9.60532	−11	0.42736	9	9.967	3
4	9.62645	−14	0.40931	12	9.964	9.60495	−14	0.42768	12	9.967	4
5	9.62609	−18	0.40961	15	9.964	9.60459	−18	0.42799	16	9.967	5
6	9.62574	−21	0.40991	18	9.964	9.60422	−22	0.42831	19	9.967	6
7	9.62539	−25	0.41021	21	9.964	9.60386	−25	0.42862	22	9.968	7
8	9.62504	−28	0.41051	24	9.964	9.60349	−29	0.42893	25	9.968	8
9	9.62468	−32	0.41081	27	9.965	9.60313	−32	0.42925	28	9.968	9
10	9.62433	−35	0.41111	30	9.965	9.60276	−37	0.42956	32	9.968	10
11	9.62398	−4	0.41141	3	9.965	9.60240	−4	0.42988	3	9.968	11
12	9.62362	−7	0.41171	6	9.965	9.60203	−7	0.43020	6	9.968	12
13	9.62327	−11	0.41201	9	9.965	9.60166	−11	0.43051	10	9.968	13
14	9.62292	−14	0.41231	12	9.965	9.60130	−15	0.43083	13	9.968	14
15	9.62256	−18	0.41261	15	9.965	9.60093	−19	0.43114	16	9.968	15
16	9.62221	−21	0.41291	18	9.965	9.60056	−22	0.43146	19	9.968	16
17	9.62185	−25	0.41322	21	9.965	9.60019	−26	0.43178	22	9.968	17
18	9.62150	−28	0.41352	24	9.965	9.59983	−30	0.43210	26	9.968	18
19	9.62114	−32	0.41382	27	9.965	9.59946	−33	0.43241	29	9.968	19
20	9.62079	−36	0.41412	30	9.965	9.59909	−37	0.43273	32	9.968	20
21	9.62043	−4	0.41443	3	9.965	9.59872	−4	0.43305	3	9.968	21
22	9.62008	−7	0.41473	6	9.965	9.59835	−7	0.43337	6	9.968	22
23	9.61972	−11	0.41503	9	9.965	9.59799	−11	0.43369	10	9.968	23
24	9.61936	−14	0.41533	12	9.965	9.59762	−15	0.43401	13	9.968	24
25	9.61901	−18	0.41564	15	9.965	9.59725	−19	0.43432	16	9.968	25
26	9.61865	−22	0.41594	18	9.965	9.59688	−22	0.43464	19	9.968	26
27	9.61830	−25	0.41625	21	9.965	9.59651	−26	0.43496	22	9.969	27
28	9.61794	−29	0.41655	24	9.966	9.59614	−30	0.43528	26	9.969	28
29	9.61758	−32	0.41686	27	9.966	9.59577	−33	0.43560	29	9.969	29
30	9.61722	−36	0.41716	31	9.966	9.59540	−37	0.43592	32	9.969	30
31	9.61687	−4	0.41747	3	9.966	9.59503	−4	0.43625	3	9.969	31
32	9.61651	−7	0.41777	6	9.966	9.59466	−7	0.43657	6	9.969	32
33	9.61615	−11	0.41808	9	9.966	9.59429	−11	0.43689	10	9.969	33
34	9.61579	−14	0.41838	12	9.966	9.59391	−15	0.43721	13	9.969	34
35	9.61544	−18	0.41869	16	9.966	9.59354	−19	0.43753	16	9.969	35
36	9.61508	−22	0.41899	19	9.966	9.59317	−22	0.43785	19	9.969	36
37	9.61472	−25	0.41930	22	9.966	9.59280	−26	0.43818	22	9.969	37
38	9.61436	−29	0.41961	25	9.966	9.59243	−30	0.43850	26	9.969	38
39	9.61400	−32	0.41992	28	9.966	9.59205	−33	0.43882	29	9.969	39
40	9.61364	−36	0.42022	31	9.966	9.59168	−37	0.43915	32	9.969	40
41	9.61328	−4	0.42053	3	9.966	9.59131	−4	0.43947	3	9.969	41
42	9.61292	−7	0.42084	6	9.966	9.59094	−7	0.43979	6	9.969	42
43	9.61256	−11	0.42115	9	9.966	9.59056	−11	0.44012	10	9.969	43
44	9.61220	−14	0.42145	12	9.966	9.59019	−15	0.44044	13	9.969	44
45	9.61184	−18	0.42176	16	9.966	9.58981	−19	0.44077	16	9.969	45
46	9.61148	−22	0.42207	19	9.966	9.58944	−22	0.44109	19	9.969	46
47	9.61112	−25	0.42238	22	9.966	9.58907	−26	0.44142	22	9.970	47
48	9.61076	−29	0.42269	25	9.967	9.58869	−30	0.44174	26	9.970	48
49	9.61040	−32	0.42300	28	9.967	9.58832	−33	0.44207	29	9.970	49
50	9.61004	−36	0.42331	31	9.967	9.58794	−38	0.44239	33	9.970	50
51	9.60967	−4	0.42362	3	9.967	9.58757	−4	0.44272	3	9.970	51
52	9.60931	−7	0.42393	6	9.967	9.58719	−8	0.44305	7	9.970	52
53	9.60895	−11	0.42424	9	9.967	9.58681	−11	0.44337	10	9.970	53
54	9.60859	−14	0.42455	12	9.967	9.58644	−15	0.44370	13	9.970	54
55	9.60823	−18	0.42486	16	9.967	9.58606	−19	0.44403	17	9.970	55
56	9.60786	−22	0.42518	19	9.967	9.58569	−23	0.44436	20	9.970	56
57	9.60750	−25	0.42549	22	9.967	9.58531	−27	0.44468	23	9.970	57
58	9.60714	−29	0.42580	25	9.967	9.58493	−30	0.44501	26	9.970	58
59	9.60677	−32	0.42611	28	9.967	9.58455	−34	0.44534	30	9.970	59
60	9.60641		0.42642		9.967	9.58418		0.44567		9.970	60

$K_1 + K_2 = K_3 \to K \to A_2, Z_2$

第 6 表 III

高度及方位角計算表 K 表

KJ符號 ltdtガ　h……0°−90°−180°−270°−360°
同名ナルトキ　+ ～ ～ +
異名ナルトキ　～ + + ～

′	69°					70°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.58418	**−38**	0.44567	**33**	9.970	9.56107	**−39**	0.46595	**35**	9.973	0
1	9.58380	− 4	0.44600	3	9.970	9.56067	− 4	0.46630	4	9.973	1
2	9.58342	− 8	0.44633	7	9.970	9.56028	− 8	0.46664	7	9.973	2
3	9.58304	−11	0.44666	10	9.970	9.55989	−12	0.46699	11	9.973	3
4	9.58267	−15	0.44699	13	9.970	9.55949	−16	0.46734	14	9.973	4
5	9.58229	−19	0.44732	17	9.970	9.55910	−20	0.46769	18	9.973	5
6	9.58191	−23	0.44765	20	9.970	9.55870	−23	0.46804	21	9.973	6
7	9.58153	−27	0.44798	23	9.970	9.55831	−27	0.46839	25	9.973	7
8	9.58115	−30	0.44831	26	9.971	9.55791	−31	0.46874	28	9.973	8
9	9.58077	−34	0.44864	30	9.971	9.55752	−35	0.46908	32	9.973	9
10	9.58039	**−38**	0.44898	**33**	9.971	9.55712	**−40**	0.46944	**35**	9.973	10
11	9.58001	− 4	0.44931	3	9.971	9.55673	− 4	0.46979	4	9.973	11
12	9.57963	− 8	0.44964	7	9.971	9.55633	− 8	0.47014	7	9.974	12
13	9.57925	−11	0.44997	10	9.971	9.55593	−12	0.47049	11	9.974	13
14	9.57887	−15	0.45031	13	9.971	9.55554	−16	0.47084	14	9.974	14
15	9.57849	−19	0.45064	17	9.971	9.55514	−20	0.47119	18	9.974	15
16	9.57810	−23	0.45097	20	9.971	9.55474	−24	0.47154	21	9.974	16
17	9.57772	−27	0.45131	23	9.971	9.55434	−28	0.47189	25	9.974	17
18	9.57734	−30	0.45164	26	9.971	9.55395	−32	0.47225	28	9.974	18
19	9.57696	−34	0.45198	30	9.971	9.55355	−36	0.47260	32	9.974	19
20	9.57658	**−38**	0.45231	**34**	9.971	9.55315	**−40**	0.47295	**36**	9.974	20
21	9.57619	− 4	0.45265	3	9.971	9.55275	− 4	0.47331	4	9.974	21
22	9.57581	− 8	0.45298	7	9.971	9.55235	− 8	0.47366	7	9.974	22
23	9.57543	−11	0.45332	10	9.971	9.55195	−12	0.47402	11	9.974	23
24	9.57504	−15	0.45365	14	9.971	9.55155	−16	0.47437	14	9.974	24
25	9.57466	−19	0.45399	17	9.971	9.55115	−20	0.47473	18	9.974	25
26	9.57428	−23	0.45433	20	9.971	9.55075	−24	0.47508	22	9.974	26
27	9.57389	−27	0.45466	24	9.971	9.55035	−28	0.47544	25	9.974	27
28	9.57351	−30	0.45500	27	9.971	9.54995	−32	0.47579	29	9.974	28
29	9.57312	−34	0.45534	31	9.972	9.54955	−36	0.47615	32	9.974	29
30	9.57274	**−39**	0.45567	**34**	9.972	9.54915	**−40**	0.47650	**36**	9.974	30
31	9.57235	− 4	0.45601	3	9.972	9.54875	− 4	0.47686	4	9.974	31
32	9.57197	− 8	0.45635	7	9.972	9.54835	− 8	0.47722	7	9.974	32
33	9.57158	−12	0.45669	10	9.972	9.54794	−12	0.47758	11	9.974	33
34	9.57120	−16	0.45703	14	9.972	9.54754	−16	0.47793	14	9.975	34
35	9.57081	−20	0.45737	17	9.972	9.54714	−20	0.47829	18	9.975	35
36	9.57042	−23	0.45771	20	9.972	9.54673	−24	0.47865	22	9.975	36
37	9.57004	−27	0.45805	24	9.972	9.54633	−28	0.47901	25	9.975	37
38	9.56965	−31	0.45839	27	9.972	9.54593	−32	0.47937	29	9.975	38
39	9.56926	−35	0.45873	31	9.972	9.54552	−36	0.47973	32	9.975	39
40	9.56887	**−39**	0.45907	**34**	9.972	9.54512	**−41**	0.48009	**36**	9.975	40
41	9.56849	− 4	0.45941	3	9.972	9.54471	− 4	0.48045	4	9.975	41
42	9.56810	− 8	0.45975	7	9.972	9.54431	− 8	0.48081	7	9.975	42
43	9.56771	−12	0.46009	10	9.972	9.54390	−12	0.48117	11	9.975	43
44	9.56732	−16	0.46043	14	9.972	9.54350	−16	0.48153	14	9.975	44
45	9.56693	−20	0.46078	17	9.972	9.54309	−21	0.48189	18	9.975	45
46	9.56654	−23	0.46112	20	9.972	9.54269	−25	0.48226	22	9.975	46
47	9.56615	−27	0.46146	24	9.972	9.54228	−29	0.48262	25	9.975	47
48	9.56576	−31	0.46181	27	9.972	9.54187	−33	0.48298	29	9.975	48
49	9.56537	−35	0.46215	31	9.972	9.54147	−37	0.48334	32	9.975	49
50	9.56498	**−39**	0.46249	**35**	9.973	9.54106	**−41**	0.48371	**37**	9.975	50
51	9.56459	− 4	0.46284	4	9.973	9.54065	− 4	0.48407	4	9.975	51
52	9.56420	− 8	0.46318	7	9.973	9.54025	− 8	0.48443	7	9.975	52
53	9.56381	−12	0.46353	11	9.973	9.53984	−12	0.48480	11	9.975	53
54	9.56342	−16	0.46387	14	9.973	9.53943	−16	0.48516	15	9.975	54
55	9.56303	−20	0.46422	18	9.973	9.53902	−21	0.48553	19	9.975	55
56	9.56264	−23	0.46456	21	9.973	9.53861	−25	0.48589	22	9.975	56
57	9.56224	−27	0.46491	25	9.973	9.53820	−29	0.48626	26	9.976	57
58	9.56185	−31	0.46525	28	9.973	9.53779	−33	0.48662	30	9.976	58
59	9.56146	−35	0.46560	32	9.973	9.53738	−37	0.48699	33	9.976	59
60	9.56107		0.46595		9.973	9.53697		0.48736		9.976	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

第 6 表 III

高度及方位角計算表 K 表

KJ符號 ltdtガ　h……0°−90°−180°−270°−360°
同名ナルトキ　+ ～ ～ +
異名ナルトキ　～ + + ～

′	71°					72°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.53697	**−41**	0.48736	**37**	9.976	9.51178	**−43**	0.51002	**39**	9.978	0
1	9.53656	− 4	0.48773	4	9.976	9.51135	− 4	0.51041	4	9.978	1
2	9.53615	− 8	0.48809	7	9.976	9.51092	− 9	0.51080	8	9.978	2
3	9.53574	−12	0.48846	11	9.976	9.51048	−13	0.51119	12	9.978	3
4	9.53533	−16	0.48883	15	9.976	9.51005	−17	0.51158	16	9.978	4
5	9.53492	−21	0.48920	19	9.976	9.50962	−22	0.51197	20	9.978	5
6	9.53450	−25	0.48957	22	9.976	9.50919	−26	0.51236	23	9.978	6
7	9.53409	−29	0.48993	26	9.976	9.50876	−30	0.51275	27	9.978	7
8	9.53368	−33	0.49030	30	9.976	9.50833	−34	0.51314	31	9.979	8
9	9.53327	−37	0.49067	33	9.976	9.50789	−39	0.51353	35	9.979	9
10	9.53285	**−42**	0.49104	**37**	9.976	9.50746	**−44**	0.51393	**39**	9.979	10
11	9.53244	− 4	0.49142	4	9.976	9.50703	− 4	0.51432	4	9.979	11
12	9.53202	− 8	0.49179	7	9.976	9.50659	− 9	0.51471	8	9.979	12
13	9.53161	−13	0.49216	11	9.976	9.50616	−13	0.51510	12	9.979	13
14	9.53120	−17	0.49253	15	9.976	9.50572	−18	0.51550	16	9.979	14
15	9.53078	−21	0.49290	19	9.976	9.50529	−22	0.51589	20	9.979	15
16	9.53037	−25	0.49327	22	9.976	9.50485	−26	0.51629	23	9.979	16
17	9.52995	−29	0.49365	26	9.976	9.50442	−31	0.51668	27	9.979	17
18	9.52953	−34	0.49402	30	9.976	9.50398	−35	0.51708	31	9.979	18
19	9.52912	−38	0.49439	33	9.976	9.50355	−40	0.51748	35	9.979	19
20	9.52870	**−42**	0.49477	**38**	9.977	9.50311	**−44**	0.51787	**40**	9.979	20
21	9.52829	− 4	0.49514	4	9.977	9.50267	− 4	0.51827	4	9.979	21
22	9.52787	− 8	0.49551	8	9.977	9.50223	− 9	0.51867	8	9.979	22
23	9.52745	−13	0.49589	11	9.977	9.50180	−13	0.51906	12	9.979	23
24	9.52703	−17	0.49626	15	9.977	9.50136	−18	0.51946	16	9.979	24
25	9.52661	−21	0.49664	19	9.977	9.50092	−22	0.51986	20	9.979	25
26	9.52620	−25	0.49702	23	9.977	9.50048	−26	0.52026	24	9.979	26
27	9.52578	−29	0.49739	27	9.977	9.50004	−31	0.52066	28	9.979	27
28	9.52536	−34	0.49777	30	9.977	9.49960	−35	0.52106	32	9.979	28
29	9.52494	−38	0.49815	34	9.977	9.49916	−40	0.52146	36	9.979	29
30	9.52452	**−42**	0.49852	**38**	9.977	9.49872	**−44**	0.52186	**40**	9.979	30
31	9.52410	− 4	0.49890	4	9.977	9.49828	− 4	0.52226	4	9.979	31
32	9.52368	− 8	0.49928	8	9.977	9.49784	− 9	0.52266	8	9.979	32
33	9.52326	−13	0.49966	11	9.977	9.49740	−13	0.52306	12	9.980	33
34	9.52284	−17	0.50004	15	9.977	9.49696	−18	0.52346	16	9.980	34
35	9.52242	−21	0.50042	19	9.977	9.49652	−22	0.52387	20	9.980	35
36	9.52200	−25	0.50080	23	9.977	9.49607	−26	0.52427	24	9.980	36
37	9.52157	−29	0.50118	27	9.977	9.49563	−31	0.52467	28	9.980	37
38	9.52115	−34	0.50156	30	9.977	9.49519	−35	0.52508	32	9.980	38
39	9.52073	−38	0.50194	34	9.977	9.49474	−40	0.52548	36	9.980	39
40	9.52031	**−42**	0.50232	**38**	9.977	9.49430	**−45**	0.52589	**41**	9.980	40
41	9.51988	− 4	0.50270	4	9.977	9.49385	− 5	0.52629	4	9.980	41
42	9.51946	− 8	0.50308	8	9.977	9.49341	− 9	0.52670	8	9.980	42
43	9.51903	−13	0.50346	11	9.978	9.49296	−14	0.52710	12	9.980	43
44	9.51861	−17	0.50385	15	9.978	9.49252	−18	0.52751	16	9.980	44
45	9.51819	−21	0.50423	19	9.978	9.49207	−23	0.52791	21	9.980	45
46	9.51776	−25	0.50461	23	9.978	9.49163	−27	0.52832	25	9.980	46
47	9.51734	−29	0.50500	27	9.978	9.49118	−32	0.52873	29	9.980	47
48	9.51691	−34	0.50538	30	9.978	9.49073	−36	0.52914	33	9.980	48
49	9.51648	−38	0.50576	34	9.978	9.49029	−41	0.52955	37	9.980	49
50	9.51606	**−43**	0.50615	**39**	9.978	9.48984	**−45**	0.52995	**41**	9.980	50
51	9.51563	− 4	0.50653	4	9.978	9.48939	− 5	0.53036	4	9.980	51
52	9.51520	− 9	0.50692	8	9.978	9.48894	− 9	0.53077	8	9.980	52
53	9.51478	−13	0.50731	12	9.978	9.48849	−14	0.53118	12	9.980	53
54	9.51435	−17	0.50769	16	9.978	9.48804	−18	0.53159	16	9.980	54
55	9.51392	−22	0.50808	20	9.978	9.48759	−23	0.53200	21	9.980	55
56	9.51349	−26	0.50847	23	9.978	9.48714	−27	0.53242	25	9.980	56
57	9.51306	−30	0.50885	27	9.978	9.48669	−32	0.53283	29	9.980	57
58	9.51264	−34	0.50924	31	9.978	9.48624	−36	0.53324	33	9.981	58
59	9.51221	−39	0.50963	35	9.978	9.48579	−41	0.53365	37	9.981	59
60	9.51178		0.51002		9.978	9.48534		0.53406		9.981	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

第 6 表 III　高度及方位角計算表　**K 表**

KJ 符號 ltdtガ　h……0°　90°　180°　270°　360°
同名ナルトキ　＋　～　～　＋
異名ナルトキ　～　＋　＋　～

′	73°					74°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.48534	−45	0.53406	42	9.981	9.45750	−48	0.55966	44	9.983	0
1	9.48489	− 5	0.53448	4	9.981	9.45702	− 5	0.56010	4	9.983	1
2	9.48443	− 9	0.53489	8	9.981	9.45654	−10	0.56054	9	9.983	2
3	9.48398	−14	0.53531	13	9.981	9.45606	−14	0.56099	13	9.983	3
4	9.48353	−18	0.53572	17	9.981	9.45559	−19	0.56143	18	9.983	4
5	9.48307	−23	0.53614	21	9.981	9.45511	−24	0.56187	22	9.983	5
6	9.48262	−27	0.53655	25	9.981	9.45463	−29	0.56231	26	9.983	6
7	9.48217	−32	0.53697	29	9.981	9.45415	−34	0.56276	31	9.983	7
8	9.48171	−36	0.53738	34	9.981	9.45367	−38	0.56320	35	9.983	8
9	9.48126	−41	0.53780	38	9.981	9.45319	−43	0.56365	40	9.983	9
10	9.48080	−46	0.53822	42	9.981	9.45271	−48	0.56409	45	9.983	10
11	9.48035	− 5	0.53864	4	9.981	9.45222	− 5	0.56454	5	9.983	11
12	9.47989	− 9	0.53905	8	9.981	9.45174	−10	0.56498	9	9.983	12
13	9.47943	−14	0.53947	13	9.981	9.45126	−14	0.56543	14	9.983	13
14	9.47897	−18	0.53989	17	9.981	9.45078	−19	0.56588	18	9.983	14
15	9.47852	−23	0.54031	21	9.981	9.45029	−24	0.56633	23	9.983	15
16	9.47806	−28	0.54073	25	9.981	9.44981	−29	0.56677	27	9.983	16
17	9.47760	−32	0.54115	29	9.981	9.44933	−34	0.56722	32	9.983	17
18	9.47714	−37	0.54157	34	9.981	9.44884	−38	0.56767	36	9.983	18
19	9.47668	−41	0.54199	38	9.981	9.44836	−43	0.56812	41	9.984	19
20	9.47622	−46	0.54242	42	9.981	9.44787	−49	0.56857	45	9.984	20
21	9.47576	− 5	0.54284	4	9.981	9.44738	− 5	0.56902	5	9.984	21
22	9.47530	− 9	0.54326	8	9.981	9.44690	−10	0.56947	9	9.984	22
23	9.47484	−14	0.54368	13	9.981	9.44641	−15	0.56992	14	9.984	23
24	9.47438	−18	0.54411	17	9.982	9.44592	−20	0.57038	18	9.984	24
25	9.47392	−23	0.54453	21	9.982	9.44544	−25	0.57083	23	9.984	25
26	9.47346	−28	0.54496	25	9.982	9.44495	−29	0.57128	27	9.984	26
27	9.47299	−32	0.54538	29	9.982	9.44446	−34	0.57174	32	9.984	27
28	9.47253	−37	0.54581	34	9.982	9.44397	−39	0.57219	36	9.984	28
29	9.47207	−41	0.54623	38	9.982	9.44348	−44	0.57265	41	9.984	29
30	9.47160	−47	0.54666	43	9.982	9.44299	−49	0.57310	46	9.984	30
31	9.47114	− 5	0.54708	4	9.982	9.44250	− 5	0.57356	5	9.984	31
32	9.47068	− 9	0.54751	9	9.982	9.44201	−10	0.57401	9	9.984	32
33	9.47021	−14	0.54794	13	9.982	9.44151	−15	0.57447	14	9.984	33
34	9.46975	−19	0.54837	17	9.982	9.44102	−20	0.57493	18	9.984	34
35	9.46928	−24	0.54880	22	9.982	9.44053	−25	0.57539	23	9.984	35
36	9.46881	−28	0.54923	26	9.982	9.44004	−29	0.57584	28	9.984	36
37	9.46835	−33	0.54965	30	9.982	9.43954	−34	0.57630	32	9.984	37
38	9.46788	−38	0.55008	34	9.982	9.43905	−39	0.57676	37	9.984	38
39	9.46741	−42	0.55052	39	9.982	9.43855	−44	0.57722	41	9.984	39
40	9.46694	−47	0.55095	43	9.982	9.43806	−50	0.57768	46	9.984	40
41	9.46648	− 5	0.55138	4	9.982	9.43756	− 5	0.57814	5	9.984	41
42	9.46601	− 9	0.55181	9	9.982	9.43707	−10	0.57860	9	9.984	42
43	9.46554	−14	0.55224	13	9.982	9.43657	−15	0.57907	14	9.984	43
44	9.46507	−19	0.55267	17	9.982	9.43607	−20	0.57953	18	9.984	44
45	9.46460	−24	0.55311	22	9.982	9.43558	−25	0.57999	23	9.984	45
46	9.46413	−28	0.55354	26	9.982	9.43508	−30	0.58046	28	9.984	46
47	9.46366	−33	0.55398	30	9.982	9.43458	−35	0.58092	32	9.985	47
48	9.46319	−38	0.55441	34	9.982	9.43408	−40	0.58139	37	9.985	48
49	9.46271	−42	0.55484	39	9.982	9.43358	−45	0.58185	41	9.985	49
50	9.46224	−47	0.55528	44	9.982	9.43308	−50	0.58232	47	9.985	50
51	9.46177	− 5	0.55572	4	9.983	9.43258	− 5	0.58278	5	9.985	51
52	9.46130	− 9	0.55615	9	9.983	9.43208	−10	0.58325	9	9.985	52
53	9.46082	−14	0.55659	13	9.983	9.43158	−15	0.58372	14	9.985	53
54	9.46035	−19	0.55703	18	9.983	9.43108	−20	0.58418	19	9.985	54
55	9.45987	−24	0.55747	22	9.983	9.43057	−25	0.58465	24	9.985	55
56	9.45940	−28	0.55790	26	9.983	9.43007	−30	0.58512	28	9.985	56
57	9.45892	−33	0.55834	31	9.983	9.42957	−35	0.58559	33	9.985	57
58	9.45845	−38	0.55878	35	9.983	9.42906	−40	0.58606	38	9.985	58
59	9.45797	−42	0.55922	40	9.983	9.42856	−45	0.58653	42	9.985	59
60	9.45750		0.55966		9.983	9.42805		0.58700		9.985	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

第 6 表 III　高度及方位角計算表　**K 表**

KJ 符號 ltdtガ　h……0°　90°　180°　270°　360°
同名ナルトキ　＋　～　～　＋
異名ナルトキ　～　＋　＋　～

′	75°					76°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.42805	−51	0.58700	47	9.985	9.39677	−54	0.61632	51	9.987	0
1	9.42755	− 5	0.58748	5	9.985	9.39623	− 5	0.61683	5	9.987	1
2	9.42704	−10	0.58795	9	9.985	9.39569	−11	0.61734	10	9.987	2
3	9.42653	−15	0.58842	14	9.985	9.39515	−16	0.61785	15	9.987	3
4	9.42603	−20	0.58889	19	9.985	9.39461	−22	0.61836	20	9.987	4
5	9.42552	−26	0.58937	24	9.985	9.39407	−27	0.61887	26	9.987	5
6	9.42501	−31	0.58984	28	9.985	9.39353	−32	0.61938	31	9.987	6
7	9.42450	−36	0.59032	33	9.985	9.39299	−38	0.61989	36	9.987	7
8	9.42399	−41	0.59079	38	9.985	9.39245	−43	0.62040	41	9.987	8
9	9.42348	−46	0.59127	42	9.985	9.39190	−49	0.62091	46	9.987	9
10	9.42297	−51	0.59175	48	9.985	9.39136	−55	0.62142	52	9.987	10
11	9.42246	− 5	0.59222	5	9.985	9.39082	− 6	0.62194	5	9.987	11
12	9.42195	−10	0.59270	10	9.985	9.39027	−11	0.62245	10	9.987	12
13	9.42144	−15	0.59318	14	9.985	9.38972	−17	0.62297	16	9.987	13
14	9.42093	−20	0.59366	19	9.985	9.38918	−22	0.62348	21	9.987	14
15	9.42041	−26	0.59414	24	9.985	9.38863	−28	0.62400	26	9.987	15
16	9.41990	−31	0.59462	29	9.985	9.38808	−33	0.62451	31	9.987	16
17	9.41939	−36	0.59510	34	9.986	9.38754	−39	0.62503	36	9.987	17
18	9.41887	−41	0.59558	38	9.986	9.38699	−44	0.62555	42	9.987	18
19	9.41836	−46	0.59606	43	9.986	9.38644	−50	0.62607	47	9.987	19
20	9.41784	−52	0.59654	49	9.986	9.38589	−55	0.62659	52	9.988	20
21	9.41733	− 5	0.59703	5	9.986	9.38534	− 6	0.62711	5	9.988	21
22	9.41681	−10	0.59751	10	9.986	9.38479	−11	0.62763	10	9.988	22
23	9.41629	−16	0.59800	15	9.986	9.38423	−17	0.62815	16	9.988	23
24	9.41578	−21	0.59848	20	9.986	9.38368	−22	0.62867	21	9.988	24
25	9.41526	−26	0.59897	25	9.986	9.38313	−28	0.62919	26	9.988	25
26	9.41474	−31	0.59945	29	9.986	9.38257	−33	0.62972	31	9.988	26
27	9.41422	−36	0.59994	34	9.986	9.38202	−39	0.63024	36	9.988	27
28	9.41370	−42	0.60042	39	9.986	9.38147	−44	0.63076	42	9.988	28
29	9.41318	−47	0.60091	44	9.986	9.38091	−50	0.63129	47	9.988	29
30	9.41266	−52	0.60140	49	9.986	9.38035	−56	0.63181	53	9.988	30
31	9.41214	− 5	0.60189	5	9.986	9.37980	− 6	0.63234	5	9.988	31
32	9.41161	−10	0.60238	10	9.986	9.37924	−11	0.63287	11	9.988	32
33	9.41109	−16	0.60287	15	9.986	9.37868	−17	0.63340	16	9.988	33
34	9.41057	−21	0.60336	20	9.986	9.37812	−22	0.63392	21	9.988	34
35	9.41005	−26	0.60385	25	9.986	9.37756	−28	0.63445	27	9.988	35
36	9.40952	−31	0.60434	29	9.986	9.37700	−34	0.63498	32	9.988	36
37	9.40900	−36	0.60483	34	9.986	9.37644	−39	0.63551	37	9.988	37
38	9.40847	−42	0.60533	39	9.986	9.37588	−45	0.63605	42	9.988	38
39	9.40795	−47	0.60582	44	9.986	9.37532	−50	0.63658	48	9.988	39
40	9.40742	−53	0.60631	50	9.986	9.37476	−57	0.63711	54	9.988	40
41	9.40689	− 5	0.60681	5	9.986	9.37419	− 6	0.63764	5	9.988	41
42	9.40636	−11	0.60730	10	9.986	9.37363	−11	0.63818	11	9.988	42
43	9.40584	−16	0.60780	15	9.986	9.37306	−17	0.63871	16	9.988	43
44	9.40531	−21	0.60830	20	9.986	9.37250	−23	0.63925	22	9.988	44
45	9.40478	−27	0.60879	25	9.986	9.37193	−29	0.63978	27	9.988	45
46	9.40425	−32	0.60929	30	9.986	9.37137	−34	0.64032	32	9.988	46
47	9.40372	−37	0.60979	35	9.986	9.37080	−40	0.64086	38	9.988	47
48	9.40319	−42	0.61029	40	9.987	9.37023	−46	0.64140	43	9.988	48
49	9.40266	−48	0.61079	45	9.987	9.36966	−51	0.64194	49	9.988	49
50	9.40212	−54	0.61129	50	9.987	9.36909	−57	0.64248	54	9.988	50
51	9.40159	− 5	0.61179	5	9.987	9.36852	− 6	0.64302	5	9.988	51
52	9.40106	−11	0.61229	10	9.987	9.36795	−11	0.64356	11	9.988	52
53	9.40052	−16	0.61279	15	9.987	9.36738	−17	0.64410	16	9.989	53
54	9.39999	−22	0.61330	20	9.987	9.36681	−23	0.64464	22	9.989	54
55	9.39945	−27	0.61380	25	9.987	9.36624	−29	0.64519	27	9.989	55
56	9.39892	−32	0.61430	30	9.987	9.36566	−34	0.64573	32	9.989	56
57	9.39838	−38	0.61481	35	9.987	9.36509	−40	0.64627	38	9.989	57
58	9.39785	−43	0.61531	40	9.987	9.36452	−46	0.64682	43	9.989	58
59	9.39731	−49	0.61582	45	9.987	9.36394	−51	0.64737	49	9.989	59
60	9.39677		0.61632		9.987	9.36336		0.64791		9.989	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

高度及方位角計算表 *K* 表

*K*ノ符號 *l*ト*d*トガ h……0°−90°−180°−270°−360°
同名ナルトキ ＋ 〜 〜 ＋
異名ナルトキ 〜 ＋ ＋ 〜

′	77°					78°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.36336	−58	0.64791	55	9.989	9.32747	−63	0.68212	60	9.990	0
1	9.36279	− 6	0.64846	6	9.989	9.32685	− 6	0.68272	6	9.990	1
2	9.36221	−12	0.64901	11	9.989	9.32623	−13	0.68331	12	9.990	2
3	9.36163	−17	0.64956	17	9.989	9.32561	−19	0.68391	18	9.990	3
4	9.36105	−23	0.65011	22	9.989	9.32498	−25	0.68451	24	9.991	4
5	9.36047	−29	0.65066	28	9.989	9.32436	−32	0.68510	30	9.991	5
6	9.35989	−35	0.65121	33	9.989	9.32373	−38	0.68570	36	9.991	6
7	9.35931	−41	0.65176	39	9.989	9.32311	−44	0.68630	42	9.991	7
8	9.35873	−46	0.65231	44	9.989	9.32248	−50	0.68690	48	9.991	8
9	9.35815	−52	0.65287	50	9.989	9.32185	−57	0.68750	54	9.991	9
10	9.35757	−59	0.65342	56	9.989	9.32122	−63	0.68811	61	9.991	10
11	9.35698	− 6	0.65398	6	9.989	9.32059	− 6	0.68871	6	9.991	11
12	9.35640	−12	0.65453	11	9.989	9.31996	−13	0.68932	12	9.991	12
13	9.35581	−18	0.65509	17	9.989	9.31933	−19	0.68992	18	9.991	13
14	9.35523	−24	0.65564	22	9.989	9.31870	−25	0.69053	24	9.991	14
15	9.35464	−30	0.65620	28	9.989	9.31806	−32	0.69113	31	9.991	15
16	9.35405	−35	0.65676	34	9.989	9.31743	−38	0.69174	37	9.991	16
17	9.35347	−41	0.65732	39	9.989	9.31679	−44	0.69235	43	9.991	17
18	9.35288	−47	0.65788	45	9.989	9.31616	−50	0.69296	49	9.991	18
19	9.35229	−53	0.65844	50	9.989	9.31552	−57	0.69357	55	9.991	19
20	9.35170	−59	0.65900	57	9.989	9.31489	−64	0.69418	62	9.991	20
21	9.35111	− 6	0.65957	6	9.989	9.31425	− 6	0.69479	6	9.991	21
22	9.35051	−12	0.66013	11	9.989	9.31361	−13	0.69541	12	9.991	22
23	9.34992	−18	0.66069	17	9.989	9.31297	−19	0.69602	19	9.991	23
24	9.34933	−24	0.66126	23	9.989	9.31233	−26	0.69664	25	9.991	24
25	9.34874	−30	0.66182	29	9.989	9.31168	−32	0.69725	31	9.991	25
26	9.34814	−35	0.66239	34	9.989	9.31104	−38	0.69787	37	9.991	26
27	9.34755	−41	0.66296	40	9.989	9.31040	−45	0.69849	43	9.991	27
28	9.34695	−47	0.66353	46	9.990	9.30975	−51	0.69910	50	9.991	28
29	9.34635	−53	0.66409	51	9.990	9.30911	−58	0.69972	56	9.991	29
30	9.34576	−60	0.66466	57	9.990	9.30846	−65	0.70034	63	9.991	30
31	9.34516	− 6	0.66523	6	9.990	9.30782	− 7	0.70097	6	9.991	31
32	9.34456	−12	0.66580	11	9.990	9.30717	−13	0.70159	13	9.991	32
33	9.34396	−18	0.66638	17	9.990	9.30652	−20	0.70221	19	9.991	33
34	9.34336	−24	0.66695	23	9.990	9.30587	−26	0.70284	25	9.991	34
35	9.34276	−30	0.66752	29	9.990	9.30522	−33	0.70346	32	9.991	35
36	9.34215	−36	0.66810	34	9.990	9.30457	−39	0.70409	38	9.991	36
37	9.34155	−42	0.66867	40	9.990	9.30391	−46	0.70471	44	9.991	37
38	9.34095	−48	0.66925	46	9.990	9.30326	−52	0.70534	50	9.991	38
39	9.34034	−54	0.66982	51	9.990	9.30261	−59	0.70597	57	9.991	39
40	9.33974	−61	0.67040	58	9.990	9.30195	−66	0.70660	64	9.991	40
41	9.33913	− 6	0.67098	6	9.990	9.30130	− 7	0.70723	6	9.991	41
42	9.33853	−12	0.67156	12	9.990	9.30064	−13	0.70786	13	9.991	42
43	9.33792	−18	0.67214	17	9.990	9.29998	−20	0.70850	19	9.992	43
44	9.33731	−24	0.67272	23	9.990	9.29932	−26	0.70913	26	9.992	44
45	9.33670	−31	0.67330	29	9.990	9.29866	−33	0.70976	32	9.992	45
46	9.33609	−37	0.67388	35	9.990	9.29800	−40	0.71040	38	9.992	46
47	9.33548	−43	0.67447	41	9.990	9.29734	−46	0.71104	45	9.992	47
48	9.33487	−49	0.67505	46	9.990	9.29668	−53	0.71167	51	9.992	48
49	9.33426	−55	0.67563	52	9.990	9.29601	−59	0.71231	58	9.992	49
50	9.33365	−62	0.67622	59	9.990	9.29535	−67	0.71295	64	9.992	50
51	9.33303	− 6	0.67681	6	9.990	9.29468	− 7	0.71359	6	9.992	51
52	9.33242	−12	0.67739	12	9.990	9.29402	−13	0.71423	13	9.992	52
53	9.33180	−19	0.67798	18	9.990	9.29335	−20	0.71488	19	9.992	53
54	9.33119	−25	0.67857	24	9.990	9.29268	−27	0.71552	26	9.992	54
55	9.33057	−31	0.67916	30	9.990	9.29201	−34	0.71616	32	9.992	55
56	9.32995	−37	0.67975	35	9.990	9.29134	−40	0.71681	38	9.992	56
57	9.32933	−43	0.68034	41	9.990	9.29067	−47	0.71746	45	9.992	57
58	9.32872	−50	0.68093	47	9.990	9.29000	−54	0.71810	51	9.992	58
59	9.32810	−56	0.68153	53	9.990	9.28933	−60	0.71875	58	9.992	59
60	9.32747		0.68212		9.990	9.28865		0.71940		9.992	60

$K_1 + K_2 = K_3 \to K \to A_2, Z_2$

高度及方位角計算表 *K* 表

*K*ノ符號 *l*ト*d*トガ h……0°−90°−180°−270°−360°
同名ナルトキ ＋ 〜 〜 ＋
異名ナルトキ 〜 ＋ ＋ 〜

′	79°					80°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.28865	−68	0.71940	66	9.992	9.24632	−74	0.76033	72	9.993	0
1	9.28798	− 7	0.72005	7	9.992	9.24558	− 7	0.76105	7	9.993	1
2	9.28730	−14	0.72070	13	9.992	9.24484	−15	0.76177	14	9.993	2
3	9.28662	−20	0.72136	20	9.992	9.24410	−22	0.76248	22	9.993	3
4	9.28595	−27	0.72201	26	9.992	9.24335	−30	0.76321	29	9.993	4
5	9.28527	−34	0.72266	33	9.992	9.24261	−37	0.76393	36	9.993	5
6	9.28459	−41	0.72332	40	9.992	9.24186	−44	0.76465	43	9.993	6
7	9.28391	−48	0.72398	46	9.992	9.24112	−52	0.76538	50	9.994	7
8	9.28323	−54	0.72463	53	9.992	9.24037	−59	0.76610	58	9.994	8
9	9.28254	−61	0.72529	59	9.992	9.23962	−67	0.76683	65	9.994	9
10	9.28186	−69	0.72595	67	9.992	9.23887	−76	0.76756	74	9.994	10
11	9.28117	− 7	0.72661	7	9.992	9.23812	− 8	0.76829	7	9.994	11
12	9.28049	−14	0.72727	13	9.992	9.23737	−15	0.76902	15	9.994	12
13	9.27980	−21	0.72794	20	9.992	9.23661	−23	0.76975	22	9.994	13
14	9.27911	−28	0.72860	27	9.992	9.23586	−30	0.77048	30	9.994	14
15	9.27842	−35	0.72927	34	9.992	9.23510	−38	0.77122	37	9.994	15
16	9.27773	−41	0.72993	40	9.992	9.23435	−46	0.77195	44	9.994	16
17	9.27704	−48	0.73060	47	9.992	9.23359	−53	0.77269	52	9.994	17
18	9.27635	−55	0.73127	54	9.992	9.23283	−61	0.77343	59	9.994	18
19	9.27566	−62	0.73194	60	9.992	9.23206	−68	0.77417	67	9.994	19
20	9.27496	−70	0.73261	68	9.992	9.23130	−77	0.77491	75	9.994	20
21	9.27427	− 7	0.73328	7	9.992	9.23054	− 8	0.77565	8	9.994	21
22	9.27357	−14	0.73395	14	9.992	9.22977	−15	0.77639	15	9.994	22
23	9.27288	−21	0.73462	20	9.993	9.22901	−23	0.77714	23	9.994	23
24	9.27218	−28	0.73530	27	9.993	9.22824	−31	0.77789	30	9.994	24
25	9.27148	−35	0.73597	34	9.993	9.22747	−39	0.77863	38	9.994	25
26	9.27078	−42	0.73665	41	9.993	9.22670	−46	0.77938	45	9.994	26
27	9.27008	−49	0.73733	48	9.993	9.22593	−54	0.78013	53	9.994	27
28	9.26937	−56	0.73801	54	9.993	9.22516	−62	0.78088	60	9.994	28
29	9.26867	−63	0.73869	61	9.993	9.22438	−69	0.78164	68	9.994	29
30	9.26797	−71	0.73937	69	9.993	9.22361	−78	0.78239	76	9.994	30
31	9.26726	− 7	0.74005	7	9.993	9.22283	− 8	0.78315	8	9.994	31
32	9.26655	−14	0.74073	14	9.993	9.22205	−16	0.78390	15	9.994	32
33	9.26585	−21	0.74142	21	9.993	9.22127	−23	0.78466	23	9.994	33
34	9.26514	−28	0.74210	28	9.993	9.22049	−31	0.78542	30	9.994	34
35	9.26443	−36	0.74279	35	9.993	9.21971	−39	0.78618	38	9.994	35
36	9.26372	−43	0.74348	41	9.993	9.21893	−47	0.78694	46	9.994	36
37	9.26301	−50	0.74417	48	9.993	9.21814	−55	0.78771	53	9.994	37
38	9.26229	−57	0.74486	55	9.993	9.21736	−62	0.78847	61	9.994	38
39	9.26158	−64	0.74555	62	9.993	9.21657	−70	0.78924	68	9.994	39
40	9.26086	−72	0.74624	70	9.993	9.21578	−80	0.79001	78	9.994	40
41	9.26015	− 7	0.74693	7	9.993	9.21499	− 8	0.79078	8	9.994	41
42	9.25943	−14	0.74763	14	9.993	9.21420	−16	0.79155	16	9.994	42
43	9.25871	−22	0.74832	21	9.993	9.21341	−24	0.79232	23	9.994	43
44	9.25799	−29	0.74902	28	9.993	9.21261	−32	0.79309	31	9.994	44
45	9.25727	−36	0.74972	35	9.993	9.21182	−40	0.79387	39	9.994	45
46	9.25655	−43	0.75042	42	9.993	9.21102	−48	0.79465	47	9.994	46
47	9.25582	−50	0.75112	49	9.993	9.21022	−56	0.79542	55	9.994	47
48	9.25510	−58	0.75182	56	9.993	9.20942	−64	0.79620	62	9.994	48
49	9.25437	−65	0.75252	63	9.993	9.20862	−72	0.79698	70	9.994	49
50	9.25365	−73	0.75323	71	9.993	9.20782	−81	0.79777	79	9.994	50
51	9.25292	− 7	0.75393	7	9.993	9.20701	− 8	0.79855	8	9.994	51
52	9.25219	−15	0.75464	14	9.993	9.20621	−16	0.79933	16	9.994	52
53	9.25146	−22	0.75534	21	9.993	9.20540	−24	0.80012	24	9.994	53
54	9.25073	−29	0.75605	28	9.993	9.20459	−32	0.80091	32	9.994	54
55	9.25000	−37	0.75676	36	9.993	9.20378	−41	0.80170	40	9.995	55
56	9.24926	−44	0.75747	43	9.993	9.20297	−49	0.80249	47	9.995	56
57	9.24853	−51	0.75819	50	9.993	9.20216	−57	0.80328	55	9.995	57
58	9.24779	−58	0.75890	57	9.993	9.20134	−65	0.80408	63	9.995	58
59	9.24706	−66	0.75961	64	9.993	9.20053	−73	0.80487	71	9.995	59
60	9.24632		0.76033		9.993	9.19971		0.80567		9.995	60

$K_1 + K_2 = K_3 \to K \to A_2, Z_2$

高度及方位角計算表 *K* 表

*K*ノ符號 *l*ト*d*トガ	h …… 0° − 90° − 180° − 270° − 360°
同名ナルトキ	+ ∼ ∼ +
異名ナルトキ	∼ + + ∼

′	81°					82°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.19971	**−83**	0.80567	**81**	9.995	9.14780	**−93**	0.85644	**91**	9.996	0
1	9.19889	− 8	0.80647	8	9.995	9.14688	− 9	0.85734	9	9.996	1
2	9.19807	−17	0.80727	16	9.995	9.14597	−19	0.85825	18	9.996	2
3	9.19725	−25	0.80807	24	9.995	9.14504	−28	0.85915	27	9.996	3
4	9.19643	−33	0.80887	32	9.995	9.14412	−37	0.86006	36	9.996	4
5	9.19561	−42	0.80967	41	9.995	9.14320	−47	0.86096	46	9.996	5
6	9.19478	−50	0.81048	49	9.995	9.14227	−56	0.86187	55	9.996	6
7	9.19395	−58	0.81129	57	9.995	9.14134	−65	0.86278	64	9.996	7
8	9.19312	−66	0.81210	65	9.995	9.14041	−74	0.86370	73	9.996	8
9	9.19229	−75	0.81291	73	9.995	9.13948	−84	0.86461	82	9.996	9
10	9.19146	**−84**	0.81372	**82**	9.995	9.13854	**−95**	0.86553	**93**	9.996	10
11	9.19063	− 8	0.81453	8	9.995	9.13761	−10	0.86645	9	9.996	11
12	9.18979	−17	0.81535	16	9.995	9.13667	−19	0.86737	19	9.996	12
13	9.18896	−25	0.81617	25	9.995	9.13573	−29	0.86829	28	9.996	13
14	9.18812	−34	0.81698	33	9.995	9.13478	−38	0.86922	37	9.996	14
15	9.18728	−42	0.81780	41	9.995	9.13384	−48	0.87015	47	9.996	15
16	9.18644	−50	0.81863	49	9.995	9.13289	−57	0.87108	56	9.996	16
17	9.18560	−59	0.81945	57	9.995	9.13194	−67	0.87201	65	9.996	17
18	9.18475	−67	0.82027	66	9.995	9.13099	−76	0.87294	74	9.996	18
19	9.18391	−76	0.82110	74	9.995	9.13004	−86	0.87388	84	9.996	19
20	9.18306	**−86**	0.82193	**84**	9.995	9.12909	**−97**	0.87481	**95**	9.996	20
21	9.18221	− 9	0.82276	8	9.995	9.12813	−10	0.87575	10	9.996	21
22	9.18136	−17	0.82359	17	9.995	9.12717	−19	0.87669	19	9.996	22
23	9.18051	−26	0.82442	25	9.995	9.12621	−29	0.87764	29	9.996	23
24	9.17965	−34	0.82526	34	9.995	9.12525	−39	0.87858	38	9.996	24
25	9.17880	−43	0.82609	42	9.995	9.12428	−49	0.87953	48	9.996	25
26	9.17794	−52	0.82693	50	9.995	9.12332	−58	0.88048	57	9.996	26
27	9.17708	−60	0.82777	59	9.995	9.12235	−68	0.88143	67	9.996	27
28	9.17622	−69	0.82861	67	9.995	9.12138	−78	0.88239	76	9.996	28
29	9.17536	−77	0.82945	76	9.995	9.12040	−87	0.88334	86	9.996	29
30	9.17450	**−87**	0.83030	**85**	9.995	9.11943	**−99**	0.88430	**97**	9.996	30
31	9.17363	− 9	0.83114	9	9.995	9.11845	−10	0.88526	10	9.996	31
32	9.17277	−17	0.83199	17	9.995	9.11747	−20	0.88623	19	9.996	32
33	9.17190	−26	0.83284	26	9.995	9.11649	−30	0.88719	29	9.996	33
34	9.17103	−35	0.83369	34	9.995	9.11551	−40	0.88816	39	9.996	34
35	9.17016	−44	0.83455	43	9.995	9.11452	−50	0.88913	49	9.996	35
36	9.16928	−52	0.83540	51	9.995	9.11353	−59	0.89010	58	9.996	36
37	9.16841	−61	0.83626	60	9.995	9.11254	−69	0.89107	68	9.996	37
38	9.16753	−70	0.83711	68	9.995	9.11155	−79	0.89205	78	9.996	38
39	9.16665	−78	0.83797	77	9.995	9.11056	−89	0.89303	87	9.996	39
40	9.16577	**−89**	0.83884	**87**	9.995	9.10956	**−101**	0.89401	**99**	9.996	40
41	9.16489	− 9	0.83970	9	9.995	9.10856	−10	0.89499	10	9.996	41
42	9.16401	−18	0.84056	17	9.995	9.10756	−20	0.89598	20	9.996	42
43	9.16312	−27	0.84143	26	9.995	9.10656	−30	0.89696	30	9.996	43
44	9.16224	−36	0.84230	35	9.995	9.10555	−40	0.89795	40	9.996	44
45	9.16135	−45	0.84317	44	9.995	9.10454	−51	0.89894	50	9.997	45
46	9.16046	−53	0.84404	52	9.996	9.10353	−61	0.89994	59	9.997	46
47	9.15956	−62	0.84492	61	9.996	9.10252	−71	0.90093	69	9.997	47
48	9.15867	−71	0.84579	70	9.996	9.10150	−81	0.90193	79	9.997	48
49	9.15777	−80	0.84667	78	9.996	9.10049	−91	0.90293	89	9.997	49
50	9.15688	**−91**	0.84755	**89**	9.996	9.09947	**−103**	0.90394	**102**	9.997	50
51	9.15598	− 9	0.84843	9	9.996	9.09845	−10	0.90494	10	9.997	51
52	9.15508	−18	0.84931	18	9.996	9.09742	−21	0.90595	20	9.997	52
53	9.15417	−27	0.85020	27	9.996	9.09640	−31	0.90696	31	9.997	53
54	9.15327	−36	0.85109	36	9.996	9.09537	−41	0.90798	41	9.997	54
55	9.15236	−46	0.85197	45	9.996	9.09434	−52	0.90899	51	9.997	55
56	9.15145	−55	0.85286	53	9.996	9.09330	−62	0.91001	61	9.997	56
57	9.15054	−64	0.85376	62	9.996	9.09227	−72	0.91103	71	9.997	57
58	9.14963	−73	0.85465	71	9.996	9.09123	−82	0.91205	82	9.997	58
59	9.14872	−82	0.85555	80	9.996	9.09019	−93	0.91308	92	9.997	59
60	9.14780		0.85644		9.996	9.08914		0.91411		9.997	60

$K_1 + K_2 = K_3 \to K \to A_2, Z_2$

高度及方位角計算表 *K* 表

*K*ノ符號 *l*ト*d*トガ	h …… 0° − 90° − 180° − 270° − 360°
同名ナルトキ	+ ∼ ∼ +
異名ナルトキ	∼ + + ∼

′	83°					84°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	9.08914	**−106**	0.91411	**104**	9.997	9.02162	**−123**	0.98077	**122**	9.998	0
1	9.08810	− 11	0.91514	10	9.997	9.02040	− 12	0.98197	12	9.998	1
2	9.08705	− 21	0.91617	21	9.997	9.01918	− 25	0.98318	24	9.998	2
3	9.08600	− 32	0.91720	31	9.997	9.01796	− 37	0.98439	37	9.998	3
4	9.08495	− 42	0.91824	42	9.997	9.01673	− 49	0.98560	49	9.998	4
5	9.08389	− 53	0.91928	52	9.997	9.01550	− 62	0.98682	61	9.998	5
6	9.08283	− 64	0.92032	62	9.997	9.01427	− 74	0.98804	73	9.998	6
7	9.08177	− 74	0.92137	73	9.997	9.01303	− 86	0.98926	85	9.998	7
8	9.08071	− 85	0.92242	83	9.997	9.01179	− 98	0.99049	98	9.998	8
9	9.07964	− 95	0.92347	94	9.997	9.01055	−111	0.99172	110	9.998	9
10	9.07858	**−108**	0.92452	**107**	9.997	9.00930	**−127**	0.99296	**125**	9.998	10
11	9.07751	− 11	0.92558	11	9.997	9.00805	− 13	0.99419	13	9.998	11
12	9.07643	− 22	0.92663	21	9.997	9.00679	− 25	0.99544	25	9.998	12
13	9.07536	− 32	0.92769	32	9.997	9.00553	− 38	0.99668	38	9.998	13
14	9.07428	− 43	0.92876	43	9.997	9.00427	− 51	0.99793	50	9.998	14
15	9.07320	− 54	0.92982	54	9.997	9.00301	− 64	0.99918	63	9.998	15
16	9.07211	− 65	0.93089	64	9.997	9.00174	− 76	1.00044	75	9.998	16
17	9.07103	− 76	0.93196	75	9.997	9.00046	− 89	1.00170	88	9.998	17
18	9.06994	− 86	0.93304	86	9.997	8.99919	−102	1.00296	100	9.998	18
19	9.06885	− 97	0.93411	96	9.997	8.99791	−114	1.00423	113	9.998	19
20	9.06775	**−111**	0.93519	**109**	9.997	8.99662	**−130**	1.00550	**129**	9.998	20
21	9.06666	− 11	0.93628	11	9.997	8.99534	− 13	1.00678	13	9.998	21
22	9.06556	− 22	0.93736	22	9.997	8.99405	− 26	1.00806	26	9.998	22
23	9.06445	− 33	0.93845	33	9.997	8.99275	− 39	1.00934	39	9.998	23
24	9.06335	− 44	0.93954	44	9.997	8.99145	− 52	1.01063	52	9.998	24
25	9.06224	− 56	0.94063	55	9.997	8.99015	− 65	1.01192	65	9.998	25
26	9.06113	− 67	0.94173	65	9.997	8.98884	− 78	1.01321	77	9.998	26
27	9.06002	− 78	0.94283	76	9.997	8.98753	− 91	1.01451	90	9.998	27
28	9.05890	− 89	0.94393	87	9.997	8.98622	−104	1.01581	103	9.998	28
29	9.05778	−100	0.94503	98	9.997	8.98490	−117	1.01712	116	9.998	29
30	9.05666	**−114**	0.94614	**112**	9.997	8.98358	**−134**	1.01843	**133**	9.998	30
31	9.05553	− 11	0.94725	11	9.997	8.98225	− 13	1.01974	13	9.998	31
32	9.05441	− 23	0.94836	22	9.997	8.98092	− 27	1.02106	27	9.998	32
33	9.05328	− 34	0.94948	34	9.997	8.97959	− 40	1.02238	40	9.998	33
34	9.05214	− 46	0.95060	45	9.997	8.97825	− 54	1.02371	53	9.998	34
35	9.05101	− 57	0.95172	56	9.997	8.97691	− 67	1.02504	67	9.998	35
36	9.04987	− 68	0.95285	67	9.997	8.97556	− 80	1.02637	80	9.998	36
37	9.04873	− 80	0.95397	78	9.997	8.97421	− 94	1.02771	93	9.998	37
38	9.04758	− 91	0.95510	90	9.997	8.97285	−107	1.02905	106	9.998	38
39	9.04643	−103	0.95624	101	9.997	8.97150	−121	1.03040	120	9.998	39
40	9.04528	**−117**	0.95738	**115**	9.997	8.97013	**−139**	1.03175	**137**	9.998	40
41	9.04413	− 12	0.95851	12	9.997	8.96877	− 14	1.03311	14	9.998	41
42	9.04297	− 23	0.95966	23	9.997	8.96739	− 28	1.03447	27	9.998	42
43	9.04181	− 35	0.96080	35	9.997	8.96602	− 42	1.03583	41	9.998	43
44	9.04065	− 47	0.96195	46	9.997	8.96464	− 56	1.03720	55	9.998	44
45	9.03948	− 59	0.96310	58	9.997	8.96325	− 70	1.03857	69	9.998	45
46	9.03832	− 70	0.96426	69	9.997	8.96187	− 83	1.03995	82	9.998	46
47	9.03714	− 82	0.96542	81	9.997	8.96047	− 97	1.04133	96	9.998	47
48	9.03597	− 94	0.96658	92	9.997	8.95908	−111	1.04272	110	9.998	48
49	9.03479	−105	0.96774	104	9.997	8.95767	−125	1.04411	123	9.998	49
50	9.03361	**−120**	0.96891	**119**	9.997	8.95627	**−143**	1.04550	**142**	9.998	50
51	9.03242	− 12	0.97008	12	9.997	8.95486	− 14	1.04690	14	9.998	51
52	9.03124	− 24	0.97126	24	9.998	8.95344	− 29	1.04830	28	9.998	52
53	9.03005	− 36	0.97243	36	9.998	8.95202	− 43	1.04971	43	9.998	53
54	9.02885	− 48	0.97361	48	9.998	8.95060	− 57	1.05113	57	9.998	54
55	9.02766	− 60	0.97480	60	9.998	8.94917	− 72	1.05254	71	9.998	55
56	9.02645	− 72	0.97598	71	9.998	8.94773	− 86	1.05397	85	9.998	56
57	9.02525	− 84	0.97717	83	9.998	8.94630	−100	1.05539	99	9.998	57
58	9.02404	− 96	0.97837	95	9.998	8.94485	−114	1.05683	114	9.998	58
59	9.02283	−108	0.97957	107	9.998	8.94340	−129	1.05826	128	9.998	59
60	9.02162		0.98077		9.998	8.94195		1.05970		9.998	60

$K_1 + K_2 = K_3 \to K \to A_2, Z_2$

h……………0° − 90° − 180° − 270° − 360°

Kノ符號 *l*ト*d*トガ {同名ナルトキ + ～ ～ +
{異名ナルトキ ～ + + ～

′	85°					86°					′
	K_3		A_2		Z_2	K_3		A_2		Z_2	
	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	L. Cot.	P.P.	L. Sec.	P.P.	L. Sin.	
0	8.94195	**−148**	1.05970	**147**	9.998	8.84464	**−185**	1.15642	**185**	9.999	0
1	8.94049	− 15	1.06115	15	9.998	8.84282	− 19	1.15823	19	9.999	1
2	8.93903	− 30	1.06260	29	9.998	8.84100	− 37	1.16004	37	9.999	2
3	8.93756	− 44	1.06406	44	9.998	8.83916	− 56	1.16187	56	9.999	3
4	8.93609	− 59	1.06552	59	9.998	8.83732	− 74	1.16370	74	9.999	4
5	8.93462	− 74	1.06699	74	9.998	8.83547	− 93	1.16554	93	9.999	5
6	8.93313	− 89	1.06846	88	9.998	8.83361	−111	1.16739	111	9.999	6
7	8.93165	−104	1.06993	103	9.998	8.83175	−130	1.16925	130	9.999	7
8	8.93016	−118	1.07141	118	9.998	8.82987	−148	1.17112	148	9.999	8
9	8.92866	−133	1.07290	132	9.998	8.82799	−167	1.17299	167	9.999	9
10	8.92716	**−153**	1.07439	**152**	9.998	8.82610	**−194**	1.17487	**193**	9.999	10
11	8.92565	− 15	1.07589	15	9.998	8.82420	− 19	1.17676	19	9.999	11
12	8.92414	− 31	1.07739	30	9.998	8.82230	− 39	1.17866	39	9.999	12
13	8.92262	− 46	1.07890	46	9.998	8.82038	− 58	1.18056	58	9.999	13
14	8.92110	− 61	1.08041	61	9.998	8.81846	− 78	1.18248	77	9.999	14
15	8.91957	− 77	1.08193	76	9.999	8.81653	− 97	1.18440	97	9.999	15
16	8.91803	− 92	1.08345	91	9.999	8.81459	−116	1.18633	116	9.999	16
17	8.91650	−107	1.08498	106	9.999	8.81264	−136	1.18827	135	9.999	17
18	8.91495	−122	1.08651	122	9.999	8.81068	−155	1.19022	154	9.999	18
19	8.91340	−138	1.08805	137	9.999	8.80872	−175	1.19218	174	9.999	19
20	8.91185	**−159**	1.08960	**158**	9.999	8.80674	**−203**	1.19415	**202**	9.999	20
21	8.91029	− 16	1.09115	16	9.999	8.80476	− 20	1.19612	20	9.999	21
22	8.90872	− 32	1.09270	32	9.999	8.80277	− 41	1.19811	40	9.999	22
23	8.90715	− 48	1.09426	47	9.999	8.80076	− 61	1.20010	61	9.999	23
24	8.90557	− 64	1.09583	63	9.999	8.79875	− 81	1.20211	81	9.999	24
25	8.90399	− 80	1.09740	79	9.999	8.79673	−102	1.20412	101	9.999	25
26	8.90240	− 95	1.09898	95	9.999	8.79470	−122	1.20614	121	9.999	26
27	8.90080	−111	1.10057	111	9.999	8.79266	−142	1.20817	141	9.999	27
28	8.89920	−127	1.10216	126	9.999	8.79061	−162	1.21021	162	9.999	28
29	8.89760	−143	1.10375	142	9.999	8.78855	−183	1.21226	182	9.999	29
30	8.89598	**−165**	1.10536	**164**	9.999	8.78649	**−212**	1.21432	**212**	9.999	30
31	8.89437	− 17	1.10696	16	9.999	8.78441	− 21	1.21640	21	9.999	31
32	8.89274	− 33	1.10858	33	9.999	8.78232	− 42	1.21848	42	9.999	32
33	8.89111	− 50	1.11020	49	9.999	8.78022	− 64	1.22057	64	9.999	33
34	8.88948	− 66	1.11183	66	9.999	8.77811	− 85	1.22267	85	9.999	34
35	8.88783	− 83	1.11346	82	9.999	8.77600	−106	1.22478	106	9.999	35
36	8.88618	− 99	1.11510	98	9.999	8.77387	−127	1.22690	127	9.999	36
37	8.88453	−116	1.11674	115	9.999	8.77173	−148	1.22903	148	9.999	37
38	8.88287	−132	1.11839	131	9.999	8.76958	−170	1.23117	170	9.999	38
39	8.88120	−149	1.12005	148	9.999	8.76742	−191	1.23333	191	9.999	39
40	8.87953	**−171**	1.12171	**170**	9.999	8.76525	**−223**	1.23549	**223**	9.999	40
41	8.87785	− 17	1.12339	17	9.999	8.76306	− 22	1.23766	22	9.999	41
42	8.87616	− 34	1.12506	34	9.999	8.76087	− 45	1.23985	45	9.999	42
43	8.87447	− 51	1.12675	51	9.999	8.75867	− 67	1.24205	67	9.999	43
44	8.87277	− 68	1.12844	68	9.999	8.75645	− 89	1.24425	89	9.999	44
45	8.87106	− 86	1.13013	85	9.999	8.75423	−112	1.24647	112	9.999	45
46	8.86935	−103	1.13184	102	9.999	8.75199	−134	1.24870	134	9.999	46
47	8.86763	−120	1.13355	119	9.999	8.74974	−156	1.25094	156	9.999	47
48	8.86591	−137	1.13526	136	9.999	8.74748	−178	1.25320	178	9.999	48
49	8.86417	−154	1.13699	153	9.999	8.74521	−201	1.25546	201	9.999	49
50	8.86243	**−178**	1.13872	**177**	9.999	8.74292	**−235**	1.25774	**235**	9.999	50
51	8.86069	− 18	1.14045	18	9.999	8.74063	− 24	1.26003	24	9.999	51
52	8.85893	− 36	1.14220	35	9.999	8.73832	− 47	1.26233	47	9.999	52
53	8.85717	− 53	1.14395	53	9.999	8.73600	− 71	1.26465	71	9.999	53
54	8.85540	− 71	1.14571	71	9.999	8.73366	− 94	1.26697	94	9.999	54
55	8.85363	− 89	1.14748	89	9.999	8.73132	−118	1.26931	118	9.999	55
56	8.85185	−107	1.14925	106	9.999	8.72896	−141	1.27166	141	9.999	56
57	8.85006	−125	1.15103	124	9.999	8.72659	−165	1.27403	165	9.999	57
58	8.84826	−142	1.15282	142	9.999	8.72420	−188	1.27641	188	9.999	58
59	8.84646	−160	1.15461	159	9.999	8.72181	−212	1.27880	212	9.999	59
60	8.84464		1.15642		9.999	8.71940		1.28120		9.999	60

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

h……………0° − 90° − 180° − 270° − 360°

Kノ符號 *l*ト*d*トガ {同名ナルトキ + ～ ～ +
{異名ナルトキ ～ + + ～

87°

′	K_3		A_2	Z_2
	L. Cot.	P.P.	L. Sec.	L. Sin.
0	8.71940	**−123**+	1.28120	9.999
.5	8.71819		1.28241	9.999
1	8.71697	− 25+	1.28362	9.999
.5	8.71575		1.28483	9.999
2	8.71453	− 49+	1.28605	9.999
.5	8.71331		1.28727	9.999
3	8.71208	− 74+	1.28849	9.999
.5	8.71085		1.28972	9.999
4	8.70962	− 98+	1.29095	9.999
.5	8.70838		1.29219	9.999
5	8.70714	**−126**+	1.29342	9.999
.5	8.70589		1.29466	9.999
6	8.70465	− 25+	1.29591	9.999
.5	8.70339		1.29716	9.999
7	8.70214	− 50+	1.29841	9.999
.5	8.70088		1.29967	9.999
8	8.69962	− 76+	1.30093	9.999
.5	8.69835		1.30219	9.999
9	8.69708	−101+	1.30346	9.999
.5	8.69581		1.30473	9.999
10	8.69453	**−130**+	1.30600	9.999
.5	8.69325		1.30728	9.999
11	8.69196	− 26+	1.30856	9.999
.5	8.69067		1.30985	9.999
12	8.68938	− 52+	1.31114	9.999
.5	8.68808		1.31243	9.999
13	8.68678	− 78+	1.31373	9.999
.5	8.68548		1.31503	9.999
14	8.68417	−104+	1.31633	9.999
.5	8.68286		1.31764	9.999
15	8.68154	**−134**+	1.31896	0.000
.5	8.68022		1.32027	0.000
16	8.67890	− 27+	1.32159	0.000
.5	8.67757		1.32292	0.000
17	8.67624	− 54+	1.32425	0.000
.5	8.67490		1.32558	0.000
18	8.67356	− 80+	1.32692	0.000
.5	8.67222		1.32826	0.000
19	8.67087	−107+	1.32961	0.000
.5	8.66952		1.33096	0.000
20	8.66816	**−138**+	1.33231	0.000
.5	8.66680		1.33367	0.000
21	8.66543	− 28+	1.33503	0.000
.5	8.66406		1.33640	0.000
22	8.66269	− 55+	1.33777	0.000
.5	8.66131		1.33915	0.000
23	8.65993	− 83+	1.34053	0.000
.5	8.65854		1.34191	0.000
24	8.65715	−110+	1.34330	0.000
.5	8.65575		1.34469	0.000
25	8.65435	**−143**+	1.34609	0.000
.5	8.65295		1.34749	0.000
26	8.65154	− 29+	1.34890	0.000
.5	8.65012		1.35031	0.000
27	8.64870	− 57+	1.35173	0.000
.5	8.64728		1.35315	0.000
28	8.64585	− 86+	1.35457	0.000
.5	8.64442		1.35600	0.000
29	8.64298	−114+	1.35744	0.000
.5	8.64154		1.35888	0.000
30	8.64009		1.36032	0.000

′	K_3		A_2	Z_2
	L. Cot.	P.P.	L. Sec.	L. Sin.
30	8.64009	**−147**+	1.36032	0.000
.5	8.63864		1.36177	0.000
31	8.63718	− 29+	1.36322	0.000
.5	8.63572		1.36468	0.000
32	8.63426	− 59+	1.36615	0.000
.5	8.63278		1.36762	0.000
33	8.63131	− 88+	1.36909	0.000
.5	8.62983		1.37057	0.000
34	8.62834	−118+	1.37205	0.000
.5	8.62685		1.37354	0.000
35	8.62535	**−153**+	1.37503	0.000
.5	8.62385		1.37653	0.000
36	8.62234	− 31+	1.37804	0.000
.5	8.62083		1.37955	0.000
37	8.61931	− 61+	1.38106	0.000
.5	8.61779		1.38258	0.000
38	8.61626	− 92+	1.38411	0.000
.5	8.61473		1.38564	0.000
39	8.61319	−122+	1.38718	0.000
.5	8.61164		1.38872	0.000
40	8.61009	**−158**+	1.39027	0.000
.5	8.60854		1.39182	0.000
41	8.60698	− 32+	1.39338	0.000
.5	8.60541		1.39494	0.000
42	8.60384	− 63+	1.39651	0.000
.5	8.60226		1.39809	0.000
43	8.60068	− 95+	1.39967	0.000
.5	8.59909		1.40126	0.000
44	8.59749	−126+	1.40285	0.000
.5	8.59589		1.40445	0.000
45	8.59428	**−164**+	1.40605	0.000
.5	8.59267		1.40766	0.000
46	8.59105	− 33+	1.40928	0.000
.5	8.58943		1.41090	0.000
47	8.58779	− 66+	1.41253	0.000
.5	8.58616		1.41417	0.000
48	8.58451	− 98+	1.41581	0.000
.5	8.58286		1.41745	0.000
49	8.58121	−131+	1.41911	0.000
.5	8.57955		1.42077	0.000
50	8.57788	**−170**+	1.42243	0.000
.5	8.57620		1.42411	0.000
51	8.57452	− 34+	1.42579	0.000
.5	8.57283		1.42747	0.000
52	8.57114	− 68+	1.42916	0.000
.5	8.56944		1.43086	0.000
53	8.56773	−102+	1.43257	0.000
.5	8.56601		1.43428	0.000
54	8.56429	−136+	1.43600	0.000
.5	8.56256		1.43773	0.000
55	8.56083	**−177**+	1.43946	0.000
.5	8.55909		1.44120	0.000
56	8.55734	− 35+	1.44295	0.000
.5	8.55558		1.44470	0.000
57	8.55382	− 71+	1.44646	0.000
.5	8.55205		1.44823	0.000
58	8.55027	−106+	1.45001	0.000
.5	8.54848		1.45179	0.000
59	8.54669	−142+	1.45358	0.000
.5	8.54489		1.45538	0.000
60	8.54308		1.45718	0.000

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

KJ符號 ltdtガ h……0°−90°−180°−270°−360°
同名ナルトキ + ～ ～ +
異名ナルトキ ～ + + ～

88°

′	K_3		A_2	Z_2
	L. Cot.	P. P.	L. Sec.	L. Sin.
0	8.54308	−185+	1.45718	0.000
.5	8.54127		1.45899	0.000
1	8.53945	− 37+	1.46081	0.000
.5	8.53762		1.46264	0.000
2	8.53578	− 74+	1.46448	0.000
.5	8.53393		1.46632	0.000
3	8.53208	−111+	1.46817	0.000
.5	8.53022		1.47003	0.000
4	8.52835	−148+	1.47190	0.000
.5	8.52647		1.47377	0.000
5	8.52459	−193+	1.47566	0.000
.5	8.52269		1.47755	0.000
6	8.52079	− 39+	1.47945	0.000
.5	8.51888		1.48136	0.000
7	8.51696	− 77+	1.48327	0.000
.5	8.51503		1.48520	0.000
8	8.51310	−116+	1.48713	0.000
.5	8.51115		1.48908	0.000
9	8.50920	−154+	1.49103	0.000
.5	8.50724		1.49299	0.000
10	8.50527	−202+	1.49496	0.000
.5	8.50329		1.49693	0.000
11	8.50130	− 40+	1.49892	0.000
.5	8.49930		1.50092	0.000
12	8.49729	− 81+	1.50292	0.000
.5	8.49528		1.50494	0.000
13	8.49325	−121+	1.50696	0.000
.5	8.49121		1.50899	0.000
14	8.48917	−162+	1.51104	0.000
.5	8.48711		1.51309	0.000
15	8.48505	−212+	1.51515	0.000
.5	8.48298		1.51722	0.000
16	8.48089	− 42+	1.51931	0.000
.5	8.47880		1.52140	0.000
17	8.47669	− 85+	1.52350	0.000
.5	8.47458		1.52561	0.000
18	8.47245	−127+	1.52774	0.000
.5	8.47032		1.52987	0.000
19	8.46817	−170+	1.53201	0.000
.5	8.46602		1.53417	0.000
20	8.46385	−223+	1.53634	0.000
.5	8.46167		1.53851	0.000
21	8.45948	− 45+	1.54070	0.000
.5	8.45728		1.54290	0.000
22	8.45507	− 89+	1.54511	0.000
.5	8.45285		1.54733	0.000
23	8.45061	−134+	1.54956	0.000
.5	8.44837		1.55180	0.000
24	8.44611	−178+	1.55406	0.000
.5	8.44384		1.55633	0.000
25	8.44156	−235+	1.55861	0.000
.5	8.43927		1.56090	0.000
26	8.43696	− 47+	1.56320	0.000
.5	8.43464		1.56552	0.000
27	8.43232	− 94+	1.56784	0.000
.5	8.42997		1.57018	0.000
28	8.42762	−141+	1.57254	0.000
.5	8.42525		1.57490	0.000
29	8.42287	−188+	1.57728	0.000
.5	8.42048		1.57968	0.000
30	8.41807		1.58208	0.000

′	K_3		A_2	Z_2
	L. Cot.	P. P.	L. Sec.	L. Sin.
30	8.41807	−248+	1.58208	0.000
.5	8.41565		1.58450	0.000
31	8.41321	− 50+	1.58693	0.000
.5	8.41077		1.58938	0.000
32	8.40830	− 99+	1.59184	0.000
.5	8.40583		1.59431	0.000
33	8.40334	−149+	1.59680	0.000
.5	8.40083		1.59930	0.000
34	8.39832	−198+	1.60182	0.000
.5	8.39578		1.60435	0.000
35	8.39323	−263+	1.60690	0.000
.5	8.39067		1.60946	0.000
36	8.38809	− 53+	1.61204	0.000
.5	8.38550		1.61463	0.000
37	8.38289	−105+	1.61724	0.000
.5	8.38026		1.61986	0.000
38	8.37762	−158+	1.62250	0.000
.5	8.37497		1.62516	0.000
39	8.37229	−210+	1.62783	0.000
.5	8.36960		1.63052	0.000
40	8.36689	−280+	1.63322	0.000
.5	8.36417		1.63595	0.000
41	8.36143	− 56+	1.63869	0.000
.5	8.35867		1.64144	0.000
42	8.35590	−112+	1.64422	0.000
.5	8.35310		1.64701	0.000
43	8.35029	−168+	1.64982	0.000
.5	8.34746		1.65265	0.000
44	8.34461	−224+	1.65550	0.000
.5	8.34174		1.65836	0.000
45	8.33886	−300+	1.66125	0.000
.5	8.33595		1.66415	0.000
46	8.33302	− 60+	1.66708	0.000
.5	8.33008		1.67002	0.000
47	8.32711	−120+	1.67298	0.000
.5	8.32413		1.67597	0.000
48	8.32112	−180+	1.67897	0.000
.5	8.31809		1.68200	0.000
49	8.31505	−240+	1.68505	0.000
.5	8.31198		1.68812	0.000
50	8.30888	−322+	1.69121	0.000
.5	8.30577		1.69432	0.000
51	8.30263	− 64+	1.69745	0.000
.5	8.29947		1.70061	0.000
52	8.29629	−129+	1.70379	0.000
.5	8.29309		1.70700	0.000
53	8.28986	−193+	1.71023	0.000
.5	8.28660		1.71348	0.000
54	8.28332	−258+	1.71676	0.000
.5	8.28002		1.72006	0.000
55	8.27669	−348+	1.72339	0.000
.5	8.27334		1.72674	0.000
56	8.26996	− 70+	1.73012	0.000
.5	8.26655		1.73352	0.000
57	8.26312	−139+	1.73696	0.000
.5	8.25965		1.74042	0.000
58	8.25616	−209+	1.74391	0.000
.5	8.25265		1.74742	0.000
59	8.24910	−278+	1.75097	0.000
.5	8.24553		1.75454	0.000
60	8.24192		1.75814	0.000

$K_1 + K_2 = K_3 \longrightarrow K \longrightarrow A_2, Z_2$

KJ符號 ltdtガ h……0°−90°−180°−270°−360°
同名ナルトキ + ～ ～ +
異名ナルトキ ～ + + ～

89°

′	0.0		0′.1		0′.2		0′.3		0′.4		Z_2
	K_3	A_2	K_3	A_2	K_3	A_2	K_3	A_2	K_3	A_2	
	L. Cot.	L. Sec.	L. Cot.	L. Sec.	L. Cot.	L. Sec.	L. Cot.	L. Sec.	L. Cot.	L. Sec.	L. Sin.
0	8.24192	1.75814	8.24120	1.75887	8.24047	1.75959	8.23974	1.76032	8.23902	1.76105	0.000
1	8.23462	1.76544	8.23388	1.76618	8.23315	1.76692	8.23241	1.76766	8.23167	1.76840	0.000
2	8.22720	1.77287	8.22645	1.77362	8.22569	1.77437	8.22494	1.77512	8.22419	1.77587	0.000
3	8.21964	1.78042	8.21888	1.78118	8.21811	1.78195	8.21735	1.78271	8.21658	1.78348	0.000
4	8.21195	1.78811	8.21118	1.78888	8.21040	1.78966	8.20962	1.79044	8.20884	1.79122	0.000
5	8.20413	1.79593	8.20334	1.79672	8.20254	1.79751	8.20175	1.79830	8.20096	1.79910	0.000
6	8.19616	1.80390	8.19535	1.80470	8.19454	1.80551	8.19374	1.80632	8.19293	1.80713	0.000
7	8.18804	1.81202	8.18722	1.81284	8.18639	1.81366	8.18557	1.81448	8.18475	1.81531	0.000
8	8.17976	1.82029	8.17893	1.82112	8.17809	1.82196	8.17725	1.82280	8.17641	1.82364	0.000
9	8.17133	1.82872	8.17048	1.82957	8.16962	1.83043	8.16877	1.83128	8.16791	1.83214	0.000
10	8.16273	1.83732	8.16186	1.83819	8.16099	1.83906	8.16011	1.83993	8.15924	1.84081	0.000
11	8.15395	1.84609	8.15306	1.84698	8.15218	1.84787	8.15128	1.84876	8.15039	1.84965	0.000
12	8.14500	1.85505	8.14409	1.85595	8.14318	1.85686	8.14227	1.85777	8.14136	1.85868	0.000
13	8.13585	1.86419	8.13493	1.86511	8.13400	1.86604	8.13307	1.86697	8.13214	1.86790	0.000
14	8.12651	1.87353	8.12556	1.87447	8.12462	1.87542	8.12367	1.87637	8.12272	1.87732	0.000
15	8.11696	1.88307	8.11600	1.88404	8.11503	1.88501	8.11406	1.88598	8.11309	1.88695	0.000
16	8.10720	1.89283	8.10621	1.89382	8.10522	1.89481	8.10423	1.89580	8.10324	1.89680	0.000
17	8.09722	1.90282	8.09621	1.90383	8.09519	1.90484	8.09418	1.90586	8.09316	1.90688	0.000
18	8.08700	1.91304	8.08596	1.91407	8.08492	1.91511	8.08388	1.91615	8.08284	1.91719	0.000
19	8.07653	1.92350	8.07547	1.92456	8.07441	1.92562	8.07334	1.92669	8.07227	1.92776	0.000
20	8.06581	1.93422	8.06472	1.93531	8.06363	1.93640	8.06254	1.93749	8.06144	1.93859	0.000
21	8.05481	1.94522	8.05369	1.94633	8.05258	1.94745	8.05146	1.94857	8.05033	1.94970	0.000
22	8.04353	1.95650	8.04238	1.95764	8.04124	1.95879	8.04008	1.95994	8.03893	1.96109	0.000
23	8.03194	1.96808	8.03077	1.96926	8.02959	1.97043	8.02841	1.97162	8.02722	1.97280	0.000
24	8.02004	1.97998	8.01884	1.98119	8.01762	1.98240	8.01641	1.98361	8.01519	1.98483	0.000
25	8.00781	1.99221	8.00657	1.99346	8.00532	1.99470	8.00407	1.99595	8.00282	1.99721	0.000
26	7.99522	2.00480	7.99394	2.00608	7.99266	2.00736	7.99137	2.00865	7.99008	2.00994	0.000
27	7.98225	2.01777	7.98094	2.01908	7.97961	2.02041	7.97829	2.02173	7.97696	2.02306	0.000
28	7.96889	2.03113	7.96753	2.03249	7.96617	2.03385	7.96480	2.03522	7.96343	2.03659	0.000
29	7.95510	2.04492	7.95370	2.04632	7.95229	2.04773	7.95088	2.04914	7.94946	2.05056	0.000
30	7.94086	2.05916	7.93941	2.06061	7.93795	2.06206	7.93649	2.06352	7.93503	2.06499	0.000
31	7.92613	2.07388	7.92463	2.07538	7.92313	2.07689	7.92162	2.07840	7.92010	2.07991	0.000
32	7.91089	2.08912	7.90934	2.09067	7.90778	2.09223	7.90622	2.09380	7.90464	2.09537	0.000
33	7.89510	2.10491	7.89349	2.10653	7.89187	2.10814	7.89025	2.10977	7.88862	2.11140	0.000
34	7.87871	2.12130	7.87703	2.12298	7.87535	2.12466	7.87367	2.12634	7.87197	2.12804	0.000
35	7.86167	2.13834	7.85993	2.14008	7.85819	2.14183	7.85643	2.14358	7.85467	2.14534	0.000
36	7.84394	2.15607	7.84213	2.15788	7.84031	2.15970	7.83848	2.16153	7.83664	2.16337	0.000
37	7.82546	2.17455	7.82357	2.17644	7.82167	2.17834	7.81976	2.18025	7.81784	2.18217	0.000
38	7.80615	2.19385	7.80418	2.19583	7.80219	2.19782	7.80019	2.19982	7.79819	2.20182	0.000
39	7.78595	2.21406	7.78388	2.21613	7.78179	2.21821	7.77970	2.22031	7.77760	2.22241	0.000
40	7.76476	2.23525	7.76258	2.23742	7.76040	2.23961	7.75820	2.24181	7.75599	2.24402	0.000
41	7.74248	2.25752	7.74019	2.25981	7.73789	2.26212	7.73557	2.26443	7.73324	2.26676	0.000
42	7.71900	2.28100	7.71658	2.28342	7.71415	2.28586	7.71170	2.28830	7.70924	2.29076	0.000
43	7.69418	2.30583	7.69162	2.30839	7.68904	2.31097	7.68645	2.31356	7.68384	2.31617	0.000
44	7.66785	2.33216	7.66513	2.33488	7.66239	2.33762	7.65963	2.34038	7.65685	2.34315	0.000
45	7.63982	2.36018	7.63692	2.36309	7.63399	2.36601	7.63105	2.36896	7.62808	2.37192	0.000
46	7.60986	2.39015	7.60674	2.39326	7.60361	2.39640	7.60045	2.39955	7.59727	2.40274	0.000
47	7.57767	2.42233	7.57432	2.42569	7.57094	2.42906	7.56753	2.43247	7.56410	2.43590	0.000
48	7.54291	2.45709	7.53927	2.46073	7.53561	2.46439	7.53191	2.46809	7.52819	2.47182	0.000
49	7.50512	2.49488	7.50115	2.49885	7.49715	2.50285	7.49311	2.50689	7.48903	2.51097	0.000
50	7.46373	2.53627	7.45936	2.54064	7.45495	2.54505	7.45050	2.54950	7.44600	2.55400	0.000
51	7.41797	2.58203	7.41312	2.58688	7.40821	2.59179	7.40325	2.59676	7.39823	2.60178	0.000
52	7.36682	2.63318	7.36135	2.63865	7.35582	2.64418	7.35022	2.64978	7.34454	2.65546	0.000
53	7.30882	2.69118	7.30258	2.69743	7.29624	2.70377	7.28980	2.71020	7.28327	2.71673	0.000
54	7.24188	2.75812	7.23458	2.76542	7.22715	2.77285	7.21960	2.78040	7.21191	2.78809	0.000
55	7.16270	2.83730	7.15392	2.84608	7.14497	2.85503	7.13582	2.86418	7.12648	2.87352	0.000
56	7.06579	2.93421	7.05479	2.94521	7.04351	2.95649	7.03193	2.96807	7.02003	2.97997	0.000
57	6.94085	3.05915	6.92612	3.07388	6.91088	3.08912	6.89509	3.10491	6.87870	3.12130	0.000
58	6.76476	3.23524	6.74248	3.25752	6.71900	3.28100	6.69418	3.30582	6.66785	3.33215	0.000
59	6.46373	3.53627	6.41797	3.58203	6.36682	3.63318	6.30882	3.69118	6.24188	3.75812	0.000
60	−∞	+∞									0.000

本頁ノ K_3 ノ表値ノ變化ハ A_2 ノ表値ノ變化ニ等シクシテ反符號ナリ、挿入ニ關シテハ202頁例(iv)參照

$K_1 + K_2 = K_3 \longrightarrow K \longrightarrow A_2, Z_2$

第 6 表 III 高度及方位角計算表 *K* 表

h …………… 0° − 90° − 180° − 270° − 360°

K ノ符號 l ト d トガ { 同名ナルトキ　+　∼　∼　+
　　　　　　　　　　　　　{ 異名ナルトキ　∼　+　+　∼

′	89° 0.5 K_3 L. Cot.	0.5 A_2 L. Sec.	0.6 K_3 L. Cot.	0.6 A_2 L. Sec.	0.7 K_3 L. Cot.	0.7 A_2 L. Sec.	0.8 K_3 L. Cot.	0.8 A_2 L. Sec.	0.9 K_3 L. Cot.	0.9 A_2 L. Sec.	Z_2 L. Sin.
0	8.23829	1.76178	8.23756	1.76251	8.23682	1.76324	8.23609	1.76397	8.23536	1.76471	0.000
1	8.23092	1.76914	8.23018	1.76988	8.22944	1.77063	8.22869	1.77137	8.22794	1.77212	0.000
2	8.22343	1.77663	8.22268	1.77738	8.22192	1.77814	8.22116	1.77890	8.22040	1.77966	0.000
3	8.21581	1.78424	8.21504	1.78501	8.21427	1.78578	8.21350	1.78656	8.21273	1.78733	0.000
4	8.20806	1.79200	8.20727	1.79278	8.20649	1.79357	8.20570	1.79435	8.20491	1.79514	0.000
5	8.20016	1.79990	8.19936	1.80069	8.19856	1.80149	8.19776	1.80229	8.19696	1.80309	0.000
6	8.19211	1.80794	8.19130	1.80875	8.19049	1.80956	8.18967	1.81038	8.18886	1.81120	0.000
7	8.18392	1.81613	8.18309	1.81696	8.18226	1.81779	8.18143	1.81862	8.18060	1.81945	0.000
8	8.17557	1.82448	8.17472	1.82533	8.17388	1.82617	8.17303	1.82702	8.17218	1.82787	0.000
9	8.16705	1.83300	8.16619	1.83386	8.16533	1.83472	8.16446	1.83559	8.16359	1.83645	0.000
10	8.15836	1.84168	8.15748	1.84256	8.15660	1.84344	8.15572	1.84432	8.15484	1.84521	0.000
11	8.14950	1.85055	8.14860	1.85144	8.14770	1.85234	8.14680	1.85324	8.14590	1.85414	0.000
12	8.14045	1.85959	8.13953	1.86051	8.13861	1.86143	8.13770	1.86235	8.13677	1.86327	0.000
13	8.13121	1.86883	8.13027	1.86977	8.12933	1.87071	8.12839	1.87164	8.12745	1.87259	0.000
14	8.12176	1.87828	8.12081	1.87923	8.11985	1.88019	8.11889	1.88115	8.11793	1.88211	0.000
15	8.11211	1.88793	8.11113	1.88890	8.11015	1.88988	8.10917	1.89086	8.10819	1.89185	0.000
16	8.10224	1.89780	8.10124	1.89880	8.10024	1.89980	8.09923	1.90080	8.09823	1.90181	0.000
17	8.09214	1.90790	8.09111	1.90892	8.09009	1.90994	8.08906	1.91097	8.08803	1.91200	0.000
18	8.08180	1.91824	8.08075	1.91928	8.07970	1.92033	8.07864	1.92139	8.07759	1.92244	0.000
19	8.07120	1.92883	8.07013	1.92990	8.06905	1.93098	8.06797	1.93206	8.06689	1.93314	0.000
20	8.06034	1.93969	8.05924	1.94079	8.05814	1.94189	8.05703	1.94300	8.05592	1.94411	0.000
21	8.04921	1.95082	8.04808	1.95195	8.04694	1.95308	8.04581	1.95422	8.04467	1.95536	0.000
22	8.03777	1.96225	8.03661	1.96341	8.03545	1.96457	8.03429	1.96574	8.03312	1.96691	0.000
23	8.02604	1.97399	8.02484	1.97518	8.02365	1.97638	8.02245	1.97757	8.02125	1.97877	0.000
24	8.01397	1.98605	8.01274	1.98728	8.01152	1.98851	8.01028	1.98974	8.00905	1.99097	0.000
25	8.00156	1.99846	8.00030	1.99972	7.99903	2.00099	7.99777	2.00225	7.99649	2.00353	0.000
26	7.98878	2.01124	7.98749	2.01253	7.98618	2.01384	7.98488	2.01514	7.98357	2.01645	0.000
27	7.97562	2.02440	7.97428	2.02574	7.97294	2.02708	7.97159	2.02842	7.97024	2.02978	0.000
28	7.96205	2.03797	7.96067	2.03935	7.95928	2.04074	7.95789	2.04213	7.95650	2.04352	0.000
29	7.94804	2.05198	7.94661	2.05341	7.94518	2.05484	7.94374	2.05627	7.94230	2.05771	0.000
30	7.93356	2.06646	7.93208	2.06793	7.93060	2.06941	7.92912	2.07090	7.92763	2.07239	0.000
31	7.91858	2.08143	7.91705	2.08296	7.91552	2.08449	7.91398	2.08603	7.91244	2.08757	0.000
32	7.90307	2.09695	7.90149	2.09853	7.89990	2.10012	7.89830	2.10171	7.89670	2.10331	0.000
33	7.88698	2.11303	7.88534	2.11467	7.88369	2.11632	7.88204	2.11798	7.88037	2.11964	0.000
34	7.87027	2.12974	7.86857	2.13144	7.86685	2.13316	7.86513	2.13488	7.86341	2.13660	0.000
35	7.85290	2.14711	7.85112	2.14889	7.84934	2.15067	7.84755	2.15246	7.84575	2.15426	0.000
36	7.83480	2.16521	7.83295	2.16706	7.83109	2.16892	7.82922	2.17079	7.82734	2.17267	0.000
37	7.81591	2.18409	7.81398	2.18603	7.81204	2.18797	7.81009	2.18992	7.80812	2.19188	0.000
38	7.79617	2.20384	7.79415	2.20586	7.79211	2.20790	7.79007	2.20994	7.78801	2.21199	0.000
39	7.77549	2.22452	7.77336	2.22665	7.77123	2.22878	7.76908	2.23093	7.76693	2.23308	0.000
40	7.75377	2.24624	7.75153	2.24847	7.74929	2.25072	7.74703	2.25297	7.74476	2.25524	0.000
41	7.73090	2.26910	7.72855	2.27146	7.72618	2.27382	7.72380	2.27620	7.72141	2.27860	0.000
42	7.70677	2.29324	7.70428	2.29573	7.70178	2.29823	7.69926	2.30075	7.69673	2.30328	0.000
43	7.68121	2.31879	7.67857	2.32143	7.67592	2.32409	7.67324	2.32676	7.67056	2.32945	0.000
44	7.65406	2.34594	7.65125	2.34875	7.64842	2.35158	7.64557	2.35443	7.64271	2.35730	0.000
45	7.62510	2.37491	7.62209	2.37791	7.61906	2.38094	7.61602	2.38399	7.61295	2.38706	0.000
46	7.59406	2.40594	7.59083	2.40917	7.58758	2.41242	7.58430	2.41570	7.58100	2.41900	0.000
47	7.56064	2.43936	7.55715	2.44285	7.55363	2.44637	7.55009	2.44991	7.54651	2.45349	0.000
48	7.52443	2.47558	7.52063	2.47937	7.51681	2.48320	7.51295	2.48706	7.50905	2.49095	0.000
49	7.48492	2.51509	7.48076	2.51924	7.47656	2.52344	7.47233	2.52767	7.46805	2.53195	0.000
50	7.44145	2.55855	7.43686	2.56315	7.43221	2.56779	7.42751	2.57249	7.42277	2.57723	0.000
51	7.39315	2.60686	7.38801	2.61200	7.38281	2.61720	7.37754	2.62246	7.37221	2.62779	0.000
52	7.33879	2.66121	7.33296	2.66704	7.32705	2.67295	7.32106	2.67894	7.31499	2.68502	0.000
53	7.27664	2.72336	7.26991	2.73009	7.26307	2.73693	7.25612	2.74388	7.24906	2.75094	0.000
54	7.20409	2.79591	7.19612	2.80388	7.18800	2.81200	7.17973	2.82027	7.17130	2.82870	0.000
55	7.11694	2.88306	7.10718	2.89282	7.09719	2.90281	7.08698	2.91302	7.07651	2.92349	0.000
56	7.00779	2.99221	6.99521	3.00480	6.98224	3.01776	6.96888	3.03112	6.95509	3.04491	0.000
57	6.86167	3.13833	6.84394	3.15606	6.82545	3.17455	6.80615	3.19385	6.78595	3.21405	0.000
58	6.63982	3.36018	6.60985	3.39015	6.57767	3.42233	6.54291	3.45709	6.50512	3.49488	0.000
59	6.16270	3.83730	6.06579	3.93421	5.94085	4.05915	5.76476	4.23524	5.46373	4.53627	0.000
60											0.000

本頁ノ K_3 ノ表値ノ變化ハ A_2 ノ表値ノ變化ニ等シクシテ反符號ナリ、挿入ニ關シテハ202頁例(iv)参照

$K_1 + K_2 = K_3 \rightarrow K \rightarrow A_2, Z_2$

第 6 表 IV 高度及方位角計算表 $l \pm K (a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

注意：l, d { 同名ニシテ $l \pm K < 0$ / 異名ニシテ $l \pm K > 0$ } ナルトキハ負高度ナリ

′	0° 0′.0 A_4 | A_3 L. Sin.	0′.1 A_4 | A_3 L. Sin.	0′.2 A_4 | A_3 L. Sin.	0′.3 A_4 | A_3 L. Sin.	0′.4 A_4 | A_3 L. Sin.	0′.5 A_4 | A_3 L. Sin.	Z_3 L. Sec.	
0	—∞※	5.46373	5.76476	5.94085	6.06579	6.16270	0.000	59
1	6.46373	6.50512	6.54291	6.57767	6.60985	6.63982	0.000	58
2	6.76476	6.78595	6.80615	6.82545	6.84394	6.86167	0.000	57
3	6.94085	6.95509	6.96888	6.98224	6.99520	7.00779	0.000	56
4	7.06579	7.07651	7.08698	7.09719	7.10718	7.11694	0.000	55
5	7.16270	7.17130	7.17973	7.18800	7.19612	7.20409	0.000	54
6	7.24188	7.24906	7.25612	7.26307	7.26991	7.27664	0.000	53
7	7.30882	7.31498	7.32106	7.32705	7.33296	7.33879	0.000	52
8	7.36682	7.37221	7.37754	7.38280	7.38800	7.39314	0.000	51
9	7.41797	7.42277	7.42751	7.43221	7.43685	7.44145	0.000	50
10	7.46373	7.46805	7.47233	7.47656	7.48076	7.48491	0.000	49
11	7.50512	7.50905	7.51294	7.51680	7.52063	7.52442	0.000	48
12	7.54291	7.54651	7.55009	7.55363	7.55715	7.56064	0.000	47
13	7.57767	7.58100	7.58430	7.58758	7.59083	7.59406	0.000	46
14	7.60985	7.61294	7.61601	7.61906	7.62209	7.62509	0.000	45
15	7.63982	7.64270	7.64557	7.64842	7.65125	7.65406	0.000	44
16	7.66784	7.67055	7.67324	7.67591	7.67857	7.68121	0.000	43
17	7.69417	7.69672	7.69925	7.70177	7.70427	7.70676	0.000	42
18	7.71900	7.72140	7.72380	7.72618	7.72854	7.73090	0.000	41
19	7.74248	7.74476	7.74703	7.74928	7.75153	7.75376	0.000	40
20	7.76475	7.76692	7.76907	7.77122	7.77335	7.77548	0.000	39
21	7.78594	7.78801	7.79006	7.79210	7.79414	7.79616	0.000	38
22	7.80615	7.80812	7.81008	7.81203	7.81397	7.81591	0.000	37
23	7.82545	7.82733	7.82921	7.83108	7.83294	7.83479	0.000	36
24	7.84393	7.84574	7.84754	7.84933	7.85111	7.85289	0.000	35
25	7.86166	7.86340	7.86512	7.86684	7.86856	7.87026	0.000	34
26	7.87870	7.88036	7.88202	7.88368	7.88533	7.88697	0.000	33
27	7.89509	7.89669	7.89829	7.89988	7.90147	7.90305	0.000	32
28	7.91088	7.91243	7.91397	7.91551	7.91704	7.91857	0.000	31
29	7.92612	7.92761	7.92910	7.93059	7.93207	7.93354	0.000	30
30	7.94084	7.94229	7.94373	7.94516	7.94659	7.94802	0.000	29
31	7.95508	7.95648	7.95787	7.95926	7.96065	7.96203	0.000	28
32	7.96887	7.97022	7.97158	7.97292	7.97426	7.97560	0.000	27
33	7.98223	7.98355	7.98486	7.98616	7.98747	7.98876	0.000	26
34	7.99520	7.99647	7.99775	7.99901	8.00028	8.00154	0.000	25
35	8.00779	8.00903	8.01026	8.01149	8.01272	8.01395	0.000	24
36	8.02002	8.02123	8.02243	8.02362	8.02482	8.02601	0.000	23
37	8.03192	8.03309	8.03426	8.03543	8.03659	8.03775	0.000	22
38	8.04350	8.04464	8.04578	8.04692	8.04805	8.04918	0.000	21
39	8.05478	8.05589	8.05700	8.05811	8.05921	8.06031	0.000	20
40	8.06578	8.06686	8.06794	8.06902	8.07010	8.07117	0.000	19
41	8.07650	8.07756	8.07861	8.07967	8.08072	8.08176	0.000	18
42	8.08696	8.08800	8.08903	8.09006	8.09108	8.09210	0.000	17
43	8.09718	8.09819	8.09920	8.10020	8.10120	8.10220	0.000	16
44	8.10717	8.10815	8.10914	8.11012	8.11110	8.11207	0.000	15
45	8.11693	8.11789	8.11885	8.11981	8.12077	8.12172	0.000	14
46	8.12647	8.12741	8.12836	8.12929	8.13023	8.13117	0.000	13
47	8.13581	8.13673	8.13765	8.13857	8.13949	8.14041	0.000	12
48	8.14495	8.14586	8.14676	8.14766	8.14856	8.14945	0.000	11
49	8.15391	8.15479	8.15568	8.15656	8.15744	8.15832	0.000	10
50	8.16268	8.16355	8.16441	8.16528	8.16614	8.16700	0.000	9
51	8.17128	8.17213	8.17298	8.17383	8.17467	8.17552	0.000	8
52	8.17971	8.18055	8.18138	8.18221	8.18304	8.18387	0.000	7
53	8.18798	8.18880	8.18962	8.19044	8.19125	8.19206	0.000	6
54	8.19610	8.19691	8.19771	8.19851	8.19931	8.20010	0.000	5
55	8.20407	8.20486	8.20565	8.20643	8.20722	8.20800	0.000	4
56	8.21189	8.21267	8.21344	8.21422	8.21499	8.21576	0.000	3
57	8.21958	8.22034	8.22110	8.22186	8.22262	8.22337	0.000	2
58	8.22713	8.22788	8.22863	8.22937	8.23012	8.23086	0.000	1
59	8.23456	8.23529	8.23603	8.23676	8.23749	8.23822	0.000	0
	A_3 1′.0	A_3 0′.9	A_3 0′.8	A_3 0′.7	A_3 0′.6	A_3 0′.5	Z_3	′
	179°							

′	0° 180° Z_4 L. Tan.	
0	—∞	60
1	6.464	59
2	6.765	58
3	6.941	57
4	7.066	56
5	7.163	55
6	7.242	54
7	7.309	53
8	7.367	52
9	7.418	51
10	7.464	50
11	7.505	49
12	7.543	48
13	7.578	47
14	7.610	46
15	7.640	45
16	7.668	44
17	7.694	43
18	7.719	42
19	7.742	41
20	7.765	40
21	7.786	39
22	7.806	38
23	7.825	37
24	7.844	36
25	7.862	35
26	7.879	34
27	7.895	33
28	7.911	32
29	7.926	31
30	7.941	30
31	7.955	29
32	7.969	28
33	7.982	27
34	7.995	26
35	8.008	25
36	8.020	24
37	8.032	23
38	8.044	22
39	8.055	21
40	8.066	20
41	8.077	19
42	8.087	18
43	8.097	17
44	8.107	16
45	8.117	15
46	8.127	14
47	8.136	13
48	8.145	12
49	8.154	11
50	8.163	10
51	8.171	9
52	8.180	8
53	8.188	7
54	8.196	6
55	8.204	5
56	8.212	4
57	8.220	3
58	8.227	2
59	8.235	1
60	8.242	0
	Z_4 359° 179	′

※ $l \sim K = 0$ ナルトキ $a = 0$, $Z_4 = Z_1 + Z_2$

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　$l \pm K(a, Z)$ 表

$A_1+A_2+A_3 = A_4 \rightarrow a$
$Z_1+Z_2+Z_3 = Z_4 \rightarrow Z$

注意：l, d {同名＝シテ $l \pm K < 0$ / 異名＝シテ $l \pm K > 0$} ナルトキハ負高度ナリ

′	0°							
	0.5		0.6		0.7		0.8	
	A_4	A	A_4	A_3	A_4	A_3	A_4	A_3
	L. Sin.		L. Sin.		L. Sin.		L. Sin.	
0	6.16270		6.24188		6.30882		6.36682	
1	6.63982		6.66785		6.69418		6.71900	
2	6.86167		6.87870		6.89509		6.91088	
3	7.00779		7.02003		7.03193		7.04351	
4	7.11694		7.12648		7.13582		7.14497	
5	7.20409		7.21191		7.21960		7.22715	
6	7.27664		7.28327		7.28980		7.29623	
7	7.33879		7.34454		7.35022		7.35582	
8	7.39314		7.39822		7.40324		7.40821	
9	7.44145		7.44600		7.45050		7.45495	
10	7.48491		7.48903		7.49311		7.49715	
11	7.52442		7.52818		7.53191		7.53561	
12	7.56064		7.56410		7.56753		7.57094	
13	7.59406		7.59726		7.60045		7.60360	
14	7.62509		7.62808		7.63104		7.63399	
15	7.65406		7.65685		7.65962		7.66238	
16	7.68121		7.68383		7.68644		7.68903	
17	7.70676		7.70924		7.71170		7.71414	
18	7.73090		7.73324		7.73557		7.73788	
19	7.75376		7.75598		7.75819		7.76039	
20	7.77548		7.77759		7.77969		7.78179	
21	7.79616		7.79818		7.80018		7.80218	
22	7.81591		7.81783		7.81975		7.82166	
23	7.83479		7.83663		7.83847		7.84030	
24	7.85289		7.85466		7.85642		7.85817	
25	7.87026		7.87196		7.87366		7.87534	
26	7.88697		7.88860		7.89023		7.89186	
27	7.90305		7.90463		7.90620		7.90777	
28	7.91857		7.92009		7.92160		7.92311	
29	7.93354		7.93501		7.93648		7.93794	
30	7.94802		7.94944		7.95086		7.95227	
31	7.96203		7.96341		7.96478		7.96615	
32	7.97560		7.97694		7.97827		7.97959	
33	7.98876		7.99006		7.99135		7.99264	
34	8.00154		8.00279		8.00405		8.00530	
35	8.01395		8.01517		8.01639		8.01760	
36	8.02601		8.02720		8.02838		8.02957	
37	8.03775		8.03891		8.04006		8.04121	
38	8.04918		8.05030		8.05143		8.05255	
39	8.06031		8.06141		8.06251		8.06360	
40	8.07117		8.07224		8.07331		8.07438	
41	8.08176		8.08281		8.08385		8.08489	
42	8.09210		8.09312		8.09414		8.09516	
43	8.10220		8.10320		8.10420		8.10519	
44	8.11207		8.11305		8.11402		8.11499	
45	8.12172		8.12268		8.12363		8.12458	
46	8.13117		8.13210		8.13303		8.13396	
47	8.14041		8.14132		8.14223		8.14314	
48	8.14945		8.15035		8.15124		8.15213	
49	8.15832		8.15919		8.16007		8.16094	
50	8.16700		8.16786		8.16872		8.16957	
51	8.17552		8.17636		8.17720		8.17804	
52	8.18387		8.18469		8.18552		8.18634	
53	8.19206		8.19287		8.19368		8.19449	
54	8.20010		8.20090		8.20170		8.20249	
55	8.20800		8.20878		8.20956		8.21034	
56	8.21576		8.21652		8.21729		8.21805	
57	8.22337		8.22413		8.22488		8.22563	
58	8.23086		8.23160		8.23234		8.23308	
59	8.23822		8.23895		8.23968		8.24041	

′	0.9		1.0		Z_3	′
	A_4	A_3	A_4	A_3		
	L. Sin.		L. Sin.		L. Sec.	
0	6.41797		6.46373		0.000	59
1	6.74248		6.76476		0.000	58
2	6.92612		6.94085		0.000	57
3	7.05479		7.06579		0.000	56
4	7.15392		7.16270		0.000	55
5	7.23458		7.24188		0.000	54
6	7.30257		7.30882		0.000	53
7	7.36135		7.36682		0.000	52
8	7.41312		7.41797		0.000	51
9	7.45936		7.46373		0.000	50
10	7.50115		7.50512		0.000	49
11	7.53927		7.54291		0.000	48
12	7.57431		7.57767		0.000	47
13	7.60674		7.60985		0.000	46
14	7.63691		7.63982		0.000	45
15	7.66512		7.66784		0.000	44
16	7.69161		7.69417		0.000	43
17	7.71658		7.71900		0.000	42
18	7.74019		7.74248		0.000	41
19	7.76258		7.76475		0.000	40
20	7.78387		7.78594		0.000	39
21	7.80417		7.80615		0.000	38
22	7.82356		7.82545		0.000	37
23	7.84212		7.84393		0.000	36
24	7.85992		7.86166		0.000	35
25	7.87702		7.87870		0.000	34
26	7.89347		7.89509		0.000	33
27	7.90933		7.91088		0.000	32
28	7.92462		7.92612		0.000	31
29	7.93939		7.94084		0.000	30
30	7.95368		7.95508		0.000	29
31	7.96751		7.96887		0.000	28
32	7.98092		7.98223		0.000	27
33	7.99392		7.99520		0.000	26
34	8.00654		8.00779		0.000	25
35	8.01881		8.02002		0.000	24
36	8.03074		8.03192		0.000	23
37	8.04236		8.04350		0.000	22
38	8.05367		8.05478		0.000	21
39	8.06469		8.06578		0.000	20
40	8.07544		8.07650		0.000	19
41	8.08593		8.08696		0.000	18
42	8.09617		8.09718		0.000	17
43	8.10618		8.10717		0.000	16
44	8.11596		8.11693		0.000	15
45	8.12553		8.12647		0.000	14
46	8.13489		8.13581		0.000	13
47	8.14405		8.14495		0.000	12
48	8.15302		8.15391		0.000	11
49	8.16181		8.16268		0.000	10
50	8.17043		8.17128		0.000	9
51	8.17888		8.17971		0.000	8
52	8.18716		8.18798		0.000	7
53	8.19530		8.19610		0.000	6
54	8.20328		8.20407		0.000	5
55	8.21112		8.21189		0.000	4
56	8.21882		8.21958		0.000	3
57	8.22638		8.22713		0.000	2
58	8.23382		8.23456		0.000	1
59	8.24113		8.24186		0.000	0

	A_1	A_2	A_3	A_3	A_3	A_3	Z_3	′
	0.5	0.4	0.3	0.2	0.1	0.0		
	179°							

	Z_4	′
	359° | 179°	

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名＝シテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　$l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	1°					
	A_4		A_3		Z_3	Z_4
	L. Sin.	P.P.	L. Sec.	L.Tan.		
0	8.24186	348	0.000	8.242	60	
.5	8.24546		0.000		.5	
1	8.24903	70	0.000	8.249	59	
.5	8.25258		0.000		.5	
2	8.25609	139	0.000	8.256	58	
.5	8.25958		0.000		.5	
3	8.26304	209	0.000	8.263	57	
.5	8.26648		0.000		.5	
4	8.26988	278	0.000	8.270	56	
.5	8.27326		0.000		.5	
5	8.27661	322	0.000	8.277	55	
.5	8.27994		0.000		.5	
6	8.28324	64	0.000	8.283	54	
.5	8.28652		0.000		.5	
7	8.28977	129	0.000	8.290	53	
.5	8.29300		0.000		.5	
8	8.29621	193	0.000	8.296	52	
.5	8.29939		0.000		.5	
9	8.30255	258	0.000	8.303	51	
.5	8.30568		0.000		.5	
10	8.30879	300	0.000	8.309	50	
.5	8.31188		0.000		.5	
11	8.31495	60	0.000	8.315	49	
.5	8.31800		0.000		.5	
12	8.32103	120	0.000	8.321	48	
.5	8.32403		0.000		.5	
13	8.32702	180	0.000	8.327	47	
.5	8.32998		0.000		.5	
14	8.33292	240	0.000	8.333	46	
.5	8.33585		0.000		.5	
15	8.33875	280	0.000	8.339	45	
.5	8.34164		0.000		.5	
16	8.34450	56	0.000	8.345	44	
.5	8.34735		0.000		.5	
17	8.35018	112	0.000	8.350	43	
.5	8.35299		0.000		.5	
18	8.35578	168	0.000	8.356	42	
.5	8.35856		0.000		.5	
19	8.36131	224	0.000	8.361	41	
.5	8.36405		0.000		.5	
20	8.36678	263	0.000	8.367	40	
.5	8.36948		0.000		.5	
21	8.37217	53	0.000	8.372	39	
.5	8.37484		0.000		.5	
22	8.37750	105	0.000	8.378	38	
.5	8.38014		0.000		.5	
23	8.38276	158	0.000	8.383	37	
.5	8.38537		0.000		.5	
24	8.38796	210	0.000	8.388	36	
.5	8.39054		0.000		.5	
25	8.39310	248	0.000	8.393	35	
.5	8.39565		0.000		.5	
26	8.39818	50	0.000	8.398	34	
.5	8.40070		0.000		.5	
27	8.40320	99	0.000	8.403	33	
.5	8.40569		0.000		.5	
28	8.40816	149	0.000	8.408	32	
.5	8.41062		0.000		.5	
29	8.41307	198	0.000	8.413	31	
.5	8.41550		0.000		.5	
30	8.41792		0.000	8.418	30	

	A_3	Z_3	Z_4	
	178°		358° | 178°	

′	1°					
	A_4		A_3		Z_3	Z_4
	L. Sin.	P.P.	L. Sec.	L.Tan.		
30	8.41792	235	0.000	8.418	30	
.5	8.42032		0.000		.5	
31	8.42272	47	0.000	8.423	29	
.5	8.42510		0.000		.5	
32	8.42746	94	0.000	8.428	28	
.5	8.42982		0.000		.5	
33	8.43216	141	0.000	8.432	27	
.5	8.43448		0.000		.5	
34	8.43680	188	0.000	8.437	26	
.5	8.43910		0.000		.5	
35	8.44139	223	0.000	8.442	25	
.5	8.44367		0.000		.5	
36	8.44594	45	0.000	8.446	24	
.5	8.44820		0.000		.5	
37	8.45044	89	0.000	8.451	23	
.5	8.45267		0.000		.5	
38	8.45489	134	0.000	8.455	22	
.5	8.45710		0.000		.5	
39	8.45930	178	0.000	8.459	21	
.5	8.46149		0.000		.5	
40	8.46366	212	0.000	8.464	20	
.5	8.46583		0.000		.5	
41	8.46799	42	0.000	8.468	19	
.5	8.47013		0.000		.5	
42	8.47226	85	0.000	8.472	18	
.5	8.47439		0.000		.5	
43	8.47650	127	0.000	8.477	17	
.5	8.47860		0.000		.5	
44	8.48069	170	0.000	8.481	16	
.5	8.48278		0.000		.5	
45	8.48485	202	0.000	8.485	15	
.5	8.48691		0.000		.5	
46	8.48896	40	0.000	8.489	14	
.5	8.49101		0.000		.5	
47	8.49304	81	0.000	8.493	13	
.5	8.49506		0.000		.5	
48	8.49708	121	0.000	8.497	12	
.5	8.49908		0.000		.5	
49	8.50108	162	0.000	8.501	11	
.5	8.50307		0.000		.5	
50	8.50504	193	0.000	8.505	10	
.5	8.50701		0.000		.5	
51	8.50897	39	0.000	8.509	9	
.5	8.51092		0.000		.5	
52	8.51287	77	0.000	8.513	8	
.5	8.51480		0.000		.5	
53	8.51673	116	0.000	8.517	7	
.5	8.51864		0.000		.5	
54	8.52055	154	0.000	8.521	6	
.5	8.52245		0.000		.5	
55	8.52434	185	0.000	8.525	5	
.5	8.52623		0.000		.5	
56	8.52810	37	0.000	8.528	4	
.5	8.52997		0.000		.5	
57	8.53183	74	0.000	8.532	3	
.5	8.53368		0.000		.5	
58	8.53552	111	0.000	8.536	2	
.5	8.53736		0.000		.5	
59	8.53919	148	0.000	8.539	1	
.5	8.54101		0.000		.5	
60	8.54282		0.000	8.543	0	

	A_3	Z_3	Z_4	
	178°		358° | 178°	

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名＝シテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　$l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	2°			182° 2°	3°			183° 3°	4°			184° 4°	
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	8.54282	347	0.000	8.543	8.71880	235	0.001	8.719	8.84358	177	0.001	8.845	60
1	8.54642	35	0.000	8.547	8.72120	24	0.001	8.722	8.84539	18	0.001	8.846	59
2	8.54999	69	0.000	8.550	8.72359	47	0.001	8.724	8.84718	35	0.001	8.848	58
3	8.55354	104	0.000	8.554	8.72597	71	0.001	8.727	8.84897	53	0.001	8.850	57
4	8.55705	139	0.000	8.557	8.72834	94	0.001	8.729	8.85075	71	0.001	8.852	56
5	8.56054	174	0.000	8.561	8.73069	118	0.001	8.731	8.85252	89	0.001	8.854	55
6	8.56400	208	0.000	8.564	8.73303	141	0.001	8.734	8.85429	106	0.001	8.855	54
7	8.56743	243	0.000	8.568	8.73535	165	0.001	8.736	8.85605	124	0.001	8.857	53
8	8.57084	278	0.000	8.571	8.73767	188	0.001	8.738	8.85780	142	0.001	8.859	52
9	8.57421	312	0.000	8.575	8.73997	212	0.001	8.741	8.85955	159	0.001	8.861	51
10	8.57757	322	0.000	8.578	8.74226	223	0.001	8.743	8.86128	170	0.001	8.862	50
11	8.58089	32	0.000	8.581	8.74454	22	0.001	8.745	8.86301	17	0.001	8.864	49
12	8.58419	64	0.000	8.585	8.74680	45	0.001	8.747	8.86474	34	0.001	8.866	48
13	8.58747	97	0.000	8.588	8.74906	67	0.001	8.750	8.86645	51	0.001	8.868	47
14	8.59072	129	0.000	8.591	8.75130	89	0.001	8.752	8.86816	68	0.001	8.869	46
15	8.59395	161	0.000	8.594	8.75353	112	0.001	8.754	8.86987	85	0.001	8.871	45
16	8.59715	193	0.000	8.597	8.75575	134	0.001	8.756	8.87156	102	0.001	8.873	44
17	8.60033	225	0.000	8.601	8.75795	156	0.001	8.759	8.87325	119	0.001	8.874	43
18	8.60349	258	0.000	8.604	8.76015	178	0.001	8.761	8.87494	136	0.001	8.876	42
19	8.60662	290	0.000	8.607	8.76234	201	0.001	8.763	8.87661	153	0.001	8.878	41
20	8.60973	299	0.000	8.610	8.76451	212	0.001	8.765	8.87829	164	0.001	8.880	40
21	8.61282	30	0.000	8.613	8.76667	21	0.001	8.767	8.87995	16	0.001	8.881	39
22	8.61589	60	0.000	8.616	8.76883	42	0.001	8.770	8.88161	33	0.001	8.883	38
23	8.61894	90	0.000	8.619	8.77097	64	0.001	8.772	8.88326	49	0.001	8.885	37
24	8.62196	120	0.000	8.622	8.77310	85	0.001	8.774	8.88490	66	0.001	8.886	36
25	8.62497	150	0.000	8.625	8.77522	106	0.001	8.776	8.88654	82	0.001	8.888	35
26	8.62795	179	0.000	8.628	8.77733	127	0.001	8.778	8.88817	98	0.001	8.889	34
27	8.63091	209	0.000	8.631	8.77943	148	0.001	8.780	8.88980	115	0.001	8.891	33
28	8.63385	239	0.000	8.634	8.78152	170	0.001	8.782	8.89142	131	0.001	8.893	32
29	8.63678	269	0.000	8.637	8.78360	191	0.001	8.784	8.89304	148	0.001	8.894	31
30	8.63968	280	0.000	8.640	8.78568	202	0.001	8.786	8.89464	158	0.001	8.896	30
31	8.64256	28	0.000	8.643	8.78774	20	0.001	8.789	8.89625	16	0.001	8.898	29
32	8.64543	56	0.000	8.646	8.78979	40	0.001	8.791	8.89784	32	0.001	8.899	28
33	8.64827	84	0.000	8.649	8.79183	61	0.001	8.793	8.89943	47	0.001	8.901	27
34	8.65110	112	0.000	8.652	8.79386	81	0.001	8.795	8.90102	63	0.001	8.902	26
35	8.65391	140	0.000	8.654	8.79588	101	0.001	8.797	8.90260	79	0.001	8.904	25
36	8.65670	168	0.000	8.657	8.79789	121	0.001	8.799	8.90417	95	0.001	8.906	24
37	8.65947	196	0.000	8.660	8.79990	141	0.001	8.801	8.90574	111	0.001	8.907	23
38	8.66223	224	0.000	8.663	8.80189	162	0.001	8.803	8.90730	126	0.001	8.909	22
39	8.66497	252	0.000	8.665	8.80388	182	0.001	8.805	8.90885	142	0.001	8.910	21
40	8.66769	263	0.000	8.668	8.80585	193	0.001	8.807	8.91040	152	0.001	8.912	20
41	8.67039	26	0.000	8.671	8.80782	19	0.001	8.809	8.91195	15	0.001	8.913	19
42	8.67308	53	0.000	8.674	8.80978	39	0.001	8.811	8.91349	30	0.001	8.915	18
43	8.67575	79	0.000	8.676	8.81173	58	0.001	8.813	8.91502	46	0.001	8.916	17
44	8.67841	105	0.000	8.679	8.81367	77	0.001	8.815	8.91655	61	0.001	8.918	16
45	8.68104	132	0.001	8.682	8.81560	97	0.001	8.817	8.91807	76	0.001	8.920	15
46	8.68367	158	0.001	8.684	8.81752	116	0.001	8.818	8.91959	91	0.002	8.921	14
47	8.68627	184	0.001	8.687	8.81944	135	0.001	8.820	8.92110	106	0.002	8.923	13
48	8.68886	210	0.001	8.689	8.82134	154	0.001	8.822	8.92261	122	0.002	8.924	12
49	8.69144	237	0.001	8.692	8.82324	174	0.001	8.824	8.92411	137	0.002	8.926	11
50	8.69400	248	0.001	8.695	8.82513	185	0.001	8.826	8.92561	147	0.002	8.927	10
51	8.69654	25	0.001	8.697	8.82701	19	0.001	8.828	8.92710	15	0.002	8.929	9
52	8.69907	50	0.001	8.700	8.82888	37	0.001	8.830	8.92859	29	0.002	8.930	8
53	8.70159	74	0.001	8.702	8.83075	56	0.001	8.832	8.93007	44	0.002	8.932	7
54	8.70409	99	0.001	8.705	8.83261	74	0.001	8.834	8.93154	59	0.002	8.933	6
55	8.70658	124	0.001	8.707	8.83446	93	0.001	8.835	8.93301	74	0.002	8.935	5
56	8.70905	149	0.001	8.710	8.83630	111	0.001	8.837	8.93448	88	0.002	8.936	4
57	8.71151	174	0.001	8.712	8.83813	130	0.001	8.839	8.93594	103	0.002	8.938	3
58	8.71395	198	0.001	8.715	8.83996	148	0.001	8.841	8.93740	118	0.002	8.939	2
59	8.71638	223	0.001	8.717	8.84177	167	0.001	8.843	8.93885	132	0.002	8.940	1
60	8.71880		0.001	8.719	8.84358		0.001	8.845	8.94030		0.002	8.942	0

	A_1	Z_3	Z_4	A_3	Z_3	Z_4	A_3	Z_3	Z_4	′
	177°		357° 177°	176°		356° 176°	175°		355° 175°	

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側＝アルハ l, d 同名＝シテ $l \pm K < 90°$ ノ場合＝限ル。

第 6 表 IV　高度及方位角計算表　$l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	5°			185° 5°	6°			186° 6°	7°			187° 7°	
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	8.94030	142	0.002	8.942	9.01923	119	0.002	9.022	9.08589	102	0.003	9.089	60
1	8.94174	14	0.002	8.943	9.02043	12	0.002	9.023	9.08692	10	0.003	9.090	59
2	8.94317	28	0.002	8.945	9.02163	24	0.002	9.024	9.08795	20	0.003	9.091	58
3	8.94461	43	0.002	8.946	9.02283	36	0.002	9.025	9.08897	31	0.003	9.092	57
4	8.94603	57	0.002	8.948	9.02402	48	0.002	9.026	9.08999	41	0.003	9.093	56
5	8.94746	71	0.002	8.949	9.02520	60	0.002	9.028	9.09101	51	0.003	9.094	55
6	8.94887	85	0.002	8.951	9.02639	71	0.002	9.029	9.09202	61	0.003	9.095	54
7	8.95029	99	0.002	8.952	9.02757	83	0.002	9.030	9.09304	71	0.003	9.096	53
8	8.95170	114	0.002	8.953	9.02874	95	0.002	9.031	9.09405	82	0.003	9.097	52
9	8.95310	128	0.002	8.955	9.02992	107	0.003	9.032	9.09506	92	0.003	9.098	51
10	8.95450	137	0.002	8.956	9.03109	115	0.003	9.034	9.09606	99	0.003	9.099	50
11	8.95589	14	0.002	8.958	9.03226	12	0.003	9.035	9.09707	10	0.003	9.100	49
12	8.95728	27	0.002	8.959	9.03342	23	0.003	9.036	9.09807	20	0.003	9.102	48
13	8.95867	41	0.002	8.960	9.03458	35	0.003	9.037	9.09907	30	0.003	9.103	47
14	8.96005	55	0.002	8.962	9.03574	46	0.003	9.038	9.10006	40	0.003	9.104	46
15	8.96143	69	0.002	8.963	9.03690	58	0.003	9.039	9.10106	50	0.003	9.105	45
16	8.96280	82	0.002	8.965	9.03805	69	0.003	9.041	9.10205	59	0.004	9.106	44
17	8.96417	96	0.002	8.966	9.03920	81	0.003	9.042	9.10304	69	0.004	9.107	43
18	8.96553	110	0.002	8.967	9.04034	92	0.003	9.043	9.10402	79	0.004	9.108	42
19	8.96689	123	0.002	8.969	9.04149	104	0.003	9.044	9.10501	89	0.004	9.109	41
20	8.96825	133	0.002	8.970	9.04262	112	0.003	9.045	9.10599	97	0.004	9.110	40
21	8.96960	13	0.002	8.971	9.04376	11	0.003	9.046	9.10697	10	0.004	9.111	39
22	8.97095	27	0.002	8.973	9.04490	22	0.003	9.048	9.10795	19	0.004	9.112	38
23	8.97229	40	0.002	8.974	9.04603	34	0.003	9.049	9.10893	29	0.004	9.113	37
24	8.97363	53	0.002	8.976	9.04715	45	0.003	9.050	9.10990	39	0.004	9.114	36
25	8.97496	67	0.002	8.977	9.04828	56	0.003	9.051	9.11087	49	0.004	9.115	35
26	8.97629	80	0.002	8.978	9.04940	67	0.003	9.052	9.11184	58	0.004	9.116	34
27	8.97762	93	0.002	8.980	9.05052	78	0.003	9.053	9.11281	68	0.004	9.116	33
28	8.97894	106	0.002	8.981	9.05164	90	0.003	9.054	9.11377	78	0.004	9.117	32
29	8.98026	120	0.002	8.982	9.05275	101	0.003	9.056	9.11474	87	0.004	9.118	31
30	8.98157	129	0.002	8.984	9.05386	109	0.003	9.057	9.11570	95	0.004	9.119	30
31	8.98288	13	0.002	8.985	9.05497	11	0.003	9.058	9.11666	10	0.004	9.120	29
32	8.98419	26	0.002	8.986	9.05607	22	0.003	9.059	9.11761	19	0.004	9.121	28
33	8.98549	39	0.002	8.988	9.05717	33	0.003	9.060	9.11857	29	0.004	9.122	27
34	8.98679	52	0.002	8.989	9.05827	44	0.003	9.061	9.11952	38	0.004	9.123	26
35	8.98808	65	0.002	8.990	9.05937	55	0.003	9.062	9.12047	48	0.004	9.124	25
36	8.98937	77	0.002	8.991	9.06046	65	0.003	9.063	9.12142	57	0.004	9.125	24
37	8.99066	90	0.002	8.993	9.06155	76	0.003	9.064	9.12236	67	0.004	9.126	23
38	8.99194	103	0.002	8.994	9.06264	87	0.003	9.066	9.12331	76	0.004	9.127	22
39	8.99322	116	0.002	8.995	9.06372	98	0.003	9.067	9.12425	86	0.004	9.128	21
40	8.99450	125	0.002	8.997	9.06481	107	0.003	9.068	9.12519	93	0.004	9.129	20
41	8.99577	13	0.002	8.998	9.06589	11	0.003	9.069	9.12612	9	0.004	9.130	19
42	8.99704	25	0.002	8.999	9.06696	21	0.003	9.070	9.12706	19	0.004	9.131	18
43	8.99830	38	0.002	9.000	9.06804	32	0.003	9.071	9.12799	28	0.004	9.132	17
44	8.99956	50	0.002	9.002	9.06911	43	0.003	9.072	9.12892	37	0.004	9.133	16
45	9.00082	63	0.002	9.003	9.07018	54	0.003	9.073	9.12985	47	0.004	9.134	15
46	9.00207	75	0.002	9.004	9.07124	64	0.003	9.074	9.13078	56	0.004	9.135	14
47	9.00332	88	0.002	9.006	9.07231	75	0.003	9.075	9.13171	65	0.004	9.136	13
48	9.00456	100	0.002	9.007	9.07337	86	0.003	9.076	9.13263	74	0.004	9.137	12
49	9.00581	113	0.002	9.008	9.07442	96	0.003	9.078	9.13355	84	0.004	9.138	11
50	9.00704	122	0.002	9.009	9.07548	104	0.003	9.079	9.13447	91	0.004	9.139	10
51	9.00828	12	0.002	9.011	9.07653	10	0.003	9.080	9.13539	9	0.004	9.139	9
52	9.00951	24	0.002	9.012	9.07758	21	0.003	9.081	9.13630	18	0.004	9.140	8
53	9.01074	37	0.002	9.013	9.07863	31	0.003	9.082	9.13722	27	0.004	9.141	7
54	9.01196	49	0.002	9.014	9.07968	42	0.003	9.083	9.13813	36	0.004	9.142	6
55	9.01318	61	0.002	9.016	9.08072	52	0.003	9.084	9.13904	46	0.004	9.143	5
56	9.01440	73	0.002	9.017	9.08176	62	0.003	9.085	9.13994	55	0.004	9.144	4
57	9.01561	85	0.002	9.018	9.08280	73	0.003	9.086	9.14085	64	0.004	9.145	3
58	9.01682	98	0.002	9.019	9.08383	83	0.003	9.087	9.14175	73	0.004	9.146	2
59	9.01803	110	0.002	9.020	9.08486	94	0.003	9.088	9.14266	82	0.004	9.147	1
60	9.01923		0.002	9.022	9.08589		0.003	9.089	9.14356		0.004	9.148	0

	A_1	Z_3	Z_4	A_3	Z_3	Z_4	A_3	Z_3	Z_4	′
	174°		354° 174°	173°		353° 173°	172°		352° 172°	

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側＝アルハ l, d 同名＝シテ $l \pm K < 90°$ ノ場合＝限ル。

第 6 表 IV 高度及方位角計算表 $l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	8° (188°)				9° (189°)				10° (190°)				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.14356	89	0.004	9.148	9.19433	79	0.005	9.200	9.23967	71	0.007	9.246	60
1	9.14445	9	0.004	9.149	9.19513	8	0.005	9.201	9.24039	7	0.007	9.247	59
2	9.14535	18	0.004	9.150	9.19592	16	0.005	9.201	9.24110	14	0.007	9.248	58
3	9.14624	27	0.004	9.151	9.19672	24	0.005	9.202	9.24181	21	0.007	9.249	57
4	9.14714	36	0.004	9.151	9.19751	32	0.005	9.203	9.24253	28	0.007	9.249	56
5	9.14803	45	0.004	9.152	9.19830	40	0.005	9.204	9.24324	36	0.007	9.250	55
6	9.14891	53	0.004	9.153	9.19909	47	0.006	9.205	9.24395	43	0.007	9.251	54
7	9.14980	62	0.004	9.154	9.19988	55	0.006	9.205	9.24466	50	0.007	9.251	53
8	9.15069	71	0.004	9.155	9.20067	63	0.006	9.206	9.24536	57	0.007	9.252	52
9	9.15157	80	0.004	9.156	9.20145	71	0.006	9.207	9.24607	64	0.007	9.253	51
10	9.15245	87	0.004	9.157	9.20223	78	0.006	9.208	9.24677	70	0.007	9.254	50
11	9.15333	9	0.004	9.158	9.20302	8	0.006	9.209	9.24748	7	0.007	9.254	49
12	9.15421	17	0.004	9.159	9.20380	16	0.006	9.209	9.24818	14	0.007	9.255	48
13	9.15508	26	0.004	9.160	9.20458	23	0.006	9.210	9.24888	21	0.007	9.256	47
14	9.15596	35	0.004	9.160	9.20535	31	0.006	9.211	9.24958	28	0.007	9.257	46
15	9.15683	44	0.005	9.161	9.20613	39	0.006	9.212	9.25028	35	0.007	9.257	45
16	9.15770	52	0.005	9.162	9.20691	47	0.006	9.213	9.25098	42	0.007	9.258	44
17	9.15857	61	0.005	9.163	9.20768	55	0.006	9.213	9.25168	49	0.007	9.259	43
18	9.15944	70	0.005	9.164	9.20845	62	0.006	9.214	9.25237	56	0.007	9.259	42
19	9.16030	78	0.005	9.165	9.20922	70	0.006	9.215	9.25307	63	0.007	9.260	41
20	9.16116	85	0.005	9.166	9.20999	76	0.006	9.216	9.25376	69	0.007	9.261	40
21	9.16203	9	0.005	9.167	9.21076	8	0.006	9.217	9.25445	7	0.007	9.262	39
22	9.16289	17	0.005	9.168	9.21153	15	0.006	9.217	9.25514	14	0.007	9.262	38
23	9.16374	26	0.005	9.168	9.21229	23	0.006	9.218	9.25583	21	0.007	9.263	37
24	9.16460	34	0.005	9.169	9.21306	30	0.006	9.219	9.25652	28	0.007	9.264	36
25	9.16545	43	0.005	9.170	9.21382	38	0.006	9.220	9.25721	35	0.007	9.264	35
26	9.16631	51	0.005	9.171	9.21458	46	0.006	9.220	9.25790	41	0.007	9.265	34
27	9.16716	60	0.005	9.172	9.21534	53	0.006	9.221	9.25858	48	0.007	9.266	33
28	9.16801	68	0.005	9.173	9.21610	61	0.006	9.222	9.25927	55	0.007	9.267	32
29	9.16886	77	0.005	9.174	9.21685	68	0.006	9.223	9.25995	62	0.007	9.267	31
30	9.16970	84	0.005	9.174	9.21761	75	0.006	9.224	9.26063	68	0.007	9.268	30
31	9.17055	8	0.005	9.175	9.21836	8	0.006	9.224	9.26131	7	0.007	9.269	29
32	9.17139	17	0.005	9.176	9.21912	15	0.006	9.225	9.26199	14	0.007	9.269	28
33	9.17223	25	0.005	9.177	9.21987	23	0.006	9.226	9.26267	20	0.007	9.270	27
34	9.17307	34	0.005	9.178	9.22062	30	0.006	9.227	9.26335	27	0.007	9.271	26
35	9.17391	42	0.005	9.179	9.22137	38	0.006	9.227	9.26403	34	0.007	9.271	25
36	9.17474	50	0.005	9.180	9.22211	45	0.006	9.228	9.26470	41	0.007	9.272	24
37	9.17558	59	0.005	9.181	9.22286	53	0.006	9.229	9.26538	48	0.007	9.273	23
38	9.17641	67	0.005	9.181	9.22361	60	0.006	9.230	9.26605	54	0.008	9.274	22
39	9.17724	76	0.005	9.182	9.22435	68	0.006	9.231	9.26672	61	0.008	9.274	21
40	9.17807	82	0.005	9.183	9.22509	74	0.006	9.231	9.26739	67	0.008	9.275	20
41	9.17890	8	0.005	9.184	9.22583	7	0.006	9.232	9.26806	7	0.008	9.276	19
42	9.17973	16	0.005	9.185	9.22657	15	0.006	9.233	9.26873	13	0.008	9.276	18
43	9.18055	25	0.005	9.186	9.22731	22	0.006	9.234	9.26940	20	0.008	9.277	17
44	9.18137	33	0.005	9.186	9.22805	30	0.006	9.234	9.27007	27	0.008	9.278	16
45	9.18220	41	0.005	9.187	9.22878	37	0.006	9.235	9.27073	34	0.008	9.278	15
46	9.18302	49	0.005	9.188	9.22952	44	0.006	9.236	9.27140	40	0.008	9.279	14
47	9.18383	57	0.005	9.189	9.23025	52	0.006	9.237	9.27206	47	0.008	9.280	13
48	9.18465	66	0.005	9.190	9.23098	59	0.006	9.237	9.27273	54	0.008	9.280	12
49	9.18547	74	0.005	9.191	9.23171	67	0.006	9.238	9.27339	60	0.008	9.281	11
50	9.18628	81	0.005	9.191	9.23244	72	0.006	9.239	9.27405	66	0.008	9.282	10
51	9.18709	8	0.005	9.192	9.23317	7	0.006	9.240	9.27471	7	0.008	9.283	9
52	9.18790	16	0.005	9.193	9.23390	14	0.006	9.240	9.27537	13	0.008	9.283	8
53	9.18871	24	0.005	9.194	9.23462	22	0.006	9.241	9.27602	20	0.008	9.284	7
54	9.18952	32	0.005	9.195	9.23535	29	0.007	9.242	9.27668	26	0.008	9.285	6
55	9.19033	41	0.005	9.196	9.23607	36	0.007	9.243	9.27734	33	0.008	9.285	5
56	9.19113	49	0.005	9.196	9.23679	43	0.007	9.243	9.27799	40	0.008	9.286	4
57	9.19193	57	0.005	9.197	9.23752	50	0.007	9.244	9.27864	46	0.008	9.287	3
58	9.19273	65	0.005	9.198	9.23823	58	0.007	9.245	9.27930	53	0.008	9.287	2
59	9.19353	73	0.005	9.199	9.23895	65	0.007	9.246	9.27995	59	0.008	9.288	1
60	9.19433		0.005	9.200	9.23967		0.007	9.246	9.28060		0.008	9.289	0

	A_3	Z_3	Z_4	A_3	Z_3	Z_4	A_3	Z_3	Z_4	′
	171° (351°)		(171°)	170° (350°)		(170°)	169° (349°)		(169°)	

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 $l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	11° (191°)				12° (192°)				13° (193°)				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.28060	64	0.008	9.289	9.31788	59	0.010	9.327	9.35209	54	0.011	9.363	60
1	9.28125	6	0.008	9.289	9.31847	6	0.010	9.328	9.35263	5	0.011	9.364	59
2	9.28190	13	0.008	9.290	9.31907	12	0.010	9.329	9.35318	11	0.011	9.365	58
3	9.28254	19	0.008	9.291	9.31966	18	0.010	9.329	9.35373	16	0.011	9.365	57
4	9.28319	26	0.008	9.291	9.32025	24	0.010	9.330	9.35427	22	0.011	9.366	56
5	9.28384	32	0.008	9.292	9.32084	30	0.010	9.331	9.35481	27	0.011	9.366	55
6	9.28448	38	0.008	9.293	9.32143	35	0.010	9.331	9.35536	32	0.011	9.367	54
7	9.28512	45	0.008	9.293	9.32202	41	0.010	9.332	9.35590	38	0.011	9.367	53
8	9.28577	51	0.008	9.294	9.32261	47	0.010	9.332	9.35644	43	0.012	9.368	52
9	9.28641	58	0.008	9.295	9.32319	53	0.010	9.333	9.35698	49	0.012	9.369	51
10	9.28705	64	0.008	9.295	9.32378	58	0.010	9.334	9.35752	54	0.012	9.369	50
11	9.28769	6	0.008	9.296	9.32437	6	0.010	9.334	9.35806	5	0.012	9.370	49
12	9.28833	13	0.008	9.297	9.32495	12	0.010	9.335	9.35860	11	0.012	9.370	48
13	9.28896	19	0.008	9.297	9.32553	17	0.010	9.335	9.35914	16	0.012	9.371	47
14	9.28960	26	0.008	9.298	9.32612	23	0.010	9.336	9.35968	22	0.012	9.371	46
15	9.29024	32	0.008	9.299	9.32670	29	0.010	9.337	9.36022	27	0.012	9.372	45
16	9.29087	38	0.008	9.299	9.32728	35	0.010	9.337	9.36075	32	0.012	9.372	44
17	9.29150	45	0.008	9.300	9.32786	41	0.010	9.338	9.36129	38	0.012	9.373	43
18	9.29214	51	0.009	9.301	9.32844	46	0.010	9.339	9.36182	43	0.012	9.374	42
19	9.29277	58	0.009	9.301	9.32902	52	0.010	9.339	9.36236	49	0.012	9.374	41
20	9.29340	63	0.009	9.302	9.32960	57	0.010	9.340	9.36289	53	0.012	9.375	40
21	9.29403	6	0.009	9.303	9.33018	6	0.010	9.340	9.36342	5	0.012	9.375	39
22	9.29466	13	0.009	9.303	9.33075	11	0.010	9.341	9.36395	11	0.012	9.376	38
23	9.29529	19	0.009	9.304	9.33133	17	0.010	9.342	9.36449	16	0.012	9.376	37
24	9.29591	25	0.009	9.305	9.33190	23	0.010	9.342	9.36502	21	0.012	9.377	36
25	9.29654	32	0.009	9.305	9.33248	29	0.010	9.343	9.36555	27	0.012	9.378	35
26	9.29716	38	0.009	9.306	9.33305	34	0.010	9.343	9.36608	32	0.012	9.378	34
27	9.29779	44	0.009	9.307	9.33362	40	0.010	9.344	9.36660	37	0.012	9.379	33
28	9.29841	50	0.009	9.307	9.33420	46	0.010	9.345	9.36713	42	0.012	9.379	32
29	9.29903	57	0.009	9.308	9.33477	51	0.010	9.345	9.36766	48	0.012	9.380	31
30	9.29966	62	0.009	9.308	9.33534	57	0.010	9.346	9.36819	52	0.012	9.380	30
31	9.30028	6	0.009	9.309	9.33591	6	0.010	9.346	9.36871	5	0.012	9.381	29
32	9.30090	12	0.009	9.310	9.33647	11	0.010	9.347	9.36924	10	0.012	9.381	28
33	9.30151	19	0.009	9.310	9.33704	17	0.011	9.348	9.36976	16	0.012	9.382	27
34	9.30213	25	0.009	9.311	9.33761	23	0.011	9.348	9.37028	21	0.012	9.383	26
35	9.30275	31	0.009	9.312	9.33818	29	0.011	9.349	9.37081	26	0.012	9.383	25
36	9.30336	37	0.009	9.312	9.33874	34	0.011	9.349	9.37133	31	0.012	9.384	24
37	9.30398	43	0.009	9.313	9.33931	40	0.011	9.350	9.37185	36	0.012	9.384	23
38	9.30459	50	0.009	9.314	9.33987	46	0.011	9.351	9.37237	42	0.012	9.385	22
39	9.30521	56	0.009	9.314	9.34043	51	0.011	9.351	9.37289	47	0.012	9.385	21
40	9.30582	61	0.009	9.315	9.34100	56	0.011	9.352	9.37341	52	0.012	9.386	20
41	9.30643	6	0.009	9.316	9.34156	6	0.011	9.352	9.37393	5	0.013	9.386	19
42	9.30704	12	0.009	9.316	9.34212	11	0.011	9.353	9.37445	10	0.013	9.387	18
43	9.30765	18	0.009	9.317	9.34268	17	0.011	9.353	9.37497	16	0.013	9.388	17
44	9.30826	24	0.009	9.317	9.34324	22	0.011	9.354	9.37549	21	0.013	9.388	16
45	9.30887	31	0.009	9.318	9.34380	28	0.011	9.355	9.37600	26	0.013	9.389	15
46	9.30947	37	0.009	9.319	9.34436	34	0.011	9.355	9.37652	31	0.013	9.389	14
47	9.31008	43	0.009	9.319	9.34491	39	0.011	9.356	9.37703	36	0.013	9.390	13
48	9.31068	49	0.009	9.320	9.34547	45	0.011	9.356	9.37755	42	0.013	9.390	12
49	9.31129	55	0.009	9.321	9.34602	50	0.011	9.357	9.37806	47	0.013	9.391	11
50	9.31189	60	0.009	9.321	9.34658	55	0.011	9.358	9.37858	51	0.013	9.391	10
51	9.31250	6	0.009	9.322	9.34713	6	0.011	9.358	9.37909	5	0.013	9.392	9
52	9.31310	12	0.009	9.322	9.34769	11	0.011	9.359	9.37960	10	0.013	9.392	8
53	9.31370	18	0.009	9.323	9.34824	17	0.011	9.359	9.38011	15	0.013	9.393	7
54	9.31430	24	0.009	9.324	9.34879	22	0.011	9.360	9.38062	20	0.013	9.394	6
55	9.31490	30	0.009	9.324	9.34934	28	0.011	9.360	9.38113	26	0.013	9.394	5
56	9.31549	36	0.009	9.325	9.34989	33	0.011	9.361	9.38164	31	0.013	9.395	4
57	9.31609	42	0.010	9.326	9.35044	39	0.011	9.362	9.38215	36	0.013	9.395	3
58	9.31669	48	0.010	9.326	9.35099	44	0.011	9.362	9.38266	41	0.013	9.396	2
59	9.31728	54	0.010	9.327	9.35154	50	0.011	9.363	9.38317	46	0.013	9.396	1
60	9.31788		0.010	9.327	9.35209		0.011	9.363	9.38368		0.013	9.397	0

	A_3	Z_3	Z_4	A_3	Z_3	Z_4	A_3	Z_3	Z_4	′
	168° (348°)		(168°)	167° (347°)		(167°)	166° (346°)		(166°)	

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　l 土 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	14° (194° | 14°)				15° (195° | 15°)				16° (196° | 16°)				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.38368	50	0.013	9.397	9.41300	47	0.015	9.428	9.44034	44	0.017	9.457	60
1	9.38418	5	0.013	9.397	9.41347	5	0.015	9.429	9.44078	4	0.017	9.458	59
2	9.38469	10	0.013	9.398	9.41394	9	0.015	9.429	9.44122	9	0.017	9.458	58
3	9.38519	15	0.013	9.398	9.41441	14	0.015	9.430	9.44166	13	0.017	9.459	57
4	9.38570	20	0.013	9.399	9.41488	19	0.015	9.430	9.44210	18	0.017	9.459	56
5	9.38620	25	0.013	9.399	9.41535	24	0.015	9.431	9.44253	22	0.017	9.460	55
6	9.38670	30	0.013	9.400	9.41582	28	0.015	9.431	9.44297	26	0.017	9.460	54
7	9.38721	35	0.013	9.401	9.41628	33	0.015	9.432	9.44341	31	0.017	9.461	53
8	9.38771	40	0.013	9.401	9.41675	38	0.015	9.432	9.44385	35	0.017	9.461	52
9	9.38821	45	0.013	9.402	9.41722	42	0.015	9.433	9.44428	40	0.017	9.462	51
10	9.38871	50	0.013	9.402	9.41768	46	0.015	9.433	9.44472	43	0.018	9.462	50
11	9.38921	5	0.013	9.403	9.41815	5	0.015	9.434	9.44516	4	0.018	9.463	49
12	9.38971	10	0.013	9.403	9.41861	9	0.015	9.434	9.44559	9	0.018	9.463	48
13	9.39021	15	0.014	9.404	9.41908	14	0.015	9.435	9.44602	13	0.018	9.464	47
14	9.39071	20	0.014	9.404	9.41954	18	0.016	9.435	9.44646	17	0.018	9.464	46
15	9.39121	25	0.014	9.405	9.42001	23	0.016	9.436	9.44689	22	0.018	9.465	45
16	9.39170	30	0.014	9.405	9.42047	28	0.016	9.436	9.44733	26	0.018	9.465	44
17	9.39220	35	0.014	9.406	9.42093	32	0.016	9.437	9.44776	30	0.018	9.466	43
18	9.39270	40	0.014	9.406	9.42140	37	0.016	9.437	9.44819	34	0.018	9.466	42
19	9.39319	45	0.014	9.407	9.42186	41	0.016	9.438	9.44862	39	0.018	9.466	41
20	9.39369	49	0.014	9.407	9.42232	46	0.016	9.438	9.44905	43	0.018	9.467	40
21	9.39418	5	0.014	9.408	9.42278	5	0.016	9.439	9.44948	4	0.018	9.467	39
22	9.39467	10	0.014	9.408	9.42324	9	0.016	9.439	9.44992	9	0.018	9.468	38
23	9.39517	15	0.014	9.409	9.42370	14	0.016	9.440	9.45035	13	0.018	9.468	37
24	9.39566	20	0.014	9.410	9.42416	18	0.016	9.440	9.45077	17	0.018	9.469	36
25	9.39615	25	0.014	9.410	9.42461	23	0.016	9.441	9.45120	22	0.018	9.469	35
26	9.39664	29	0.014	9.411	9.42507	28	0.016	9.441	9.45163	26	0.018	9.470	34
27	9.39713	34	0.014	9.411	9.42553	32	0.016	9.442	9.45206	30	0.018	9.470	33
28	9.39762	39	0.014	9.412	9.42599	37	0.016	9.442	9.45249	34	0.018	9.471	32
29	9.39811	44	0.014	9.412	9.42644	41	0.016	9.442	9.45292	39	0.018	9.471	31
30	9.39860	49	0.014	9.413	9.42690	45	0.016	9.443	9.45334	42	0.018	9.472	30
31	9.39909	5	0.014	9.413	9.42735	5	0.016	9.443	9.45377	4	0.018	9.472	29
32	9.39958	10	0.014	9.414	9.42781	9	0.016	9.444	9.45419	8	0.018	9.473	28
33	9.40006	15	0.014	9.414	9.42826	14	0.016	9.444	9.45462	13	0.018	9.473	27
34	9.40055	20	0.014	9.415	9.42872	18	0.016	9.445	9.45504	17	0.018	9.473	26
35	9.40103	25	0.014	9.415	9.42917	23	0.016	9.445	9.45547	21	0.018	9.474	25
36	9.40152	29	0.014	9.416	9.42962	27	0.016	9.446	9.45589	25	0.018	9.474	24
37	9.40200	34	0.014	9.416	9.43008	32	0.016	9.446	9.45632	29	0.019	9.475	23
38	9.40249	39	0.014	9.417	9.43053	36	0.016	9.447	9.45674	34	0.019	9.475	22
39	9.40297	44	0.014	9.417	9.43098	41	0.016	9.447	9.45716	38	0.019	9.476	21
40	9.40346	48	0.014	9.418	9.43143	45	0.016	9.448	9.45758	42	0.019	9.476	20
41	9.40394	5	0.014	9.418	9.43188	5	0.016	9.448	9.45801	4	0.019	9.477	19
42	9.40442	10	0.014	9.419	9.43233	9	0.017	9.449	9.45843	8	0.019	9.477	18
43	9.40490	14	0.014	9.419	9.43278	14	0.017	9.449	9.45885	13	0.019	9.478	17
44	9.40538	19	0.015	9.420	9.43323	18	0.017	9.450	9.45927	17	0.019	9.478	16
45	9.40586	24	0.015	9.420	9.43367	23	0.017	9.450	9.45969	21	0.019	9.479	15
46	9.40634	29	0.015	9.421	9.43412	27	0.017	9.451	9.46011	25	0.019	9.479	14
47	9.40682	34	0.015	9.421	9.43457	32	0.017	9.451	9.46053	29	0.019	9.479	13
48	9.40730	38	0.015	9.422	9.43502	36	0.017	9.452	9.46095	34	0.019	9.480	12
49	9.40778	43	0.015	9.422	9.43546	41	0.017	9.452	9.46136	38	0.019	9.480	11
50	9.40825	47	0.015	9.423	9.43591	44	0.017	9.453	9.46178	42	0.019	9.481	10
51	9.40873	5	0.015	9.423	9.43635	4	0.017	9.453	9.46220	4	0.019	9.481	9
52	9.40921	9	0.015	9.424	9.43680	9	0.017	9.454	9.46262	8	0.019	9.482	8
53	9.40968	14	0.015	9.425	9.43724	13	0.017	9.454	9.46303	13	0.019	9.482	7
54	9.41016	19	0.015	9.425	9.43769	18	0.017	9.455	9.46345	17	0.019	9.483	6
55	9.41063	24	0.015	9.426	9.43813	22	0.017	9.455	9.46386	21	0.019	9.483	5
56	9.41111	28	0.015	9.426	9.43857	26	0.017	9.456	9.46428	25	0.019	9.484	4
57	9.41158	33	0.015	9.427	9.43901	31	0.017	9.456	9.46469	29	0.019	9.484	3
58	9.41205	38	0.015	9.427	9.43946	35	0.017	9.457	9.46511	34	0.019	9.484	2
59	9.41252	42	0.015	9.428	9.43990	40	0.017	9.457	9.46552	38	0.019	9.485	1
60	9.41300		0.015	9.428	9.44034		0.017	9.457	9.46594		0.019	9.485	0

	A_3	Z_3	Z_4	A_3	Z_3	Z_4	A_3	Z_3	Z_4	′
	165° (345° | 165°)			164° (344° | 164°)			163° (343° | 163°)			

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 土 K < 90° ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　l 土 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	17° (197° | 17°)				18° (198° | 18°)				19° (199° | 19°)				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.46594	41	0.019	9.485	9.48998	39	0.022	9.512	9.51264	37	0.024	9.537	60
1	9.46635	4	0.019	9.486	9.49037	4	0.022	9.512	9.51301	4	0.024	9.537	59
2	9.46676	8	0.019	9.486	9.49076	8	0.022	9.513	9.51338	7	0.024	9.538	58
3	9.46717	12	0.020	9.487	9.49115	12	0.022	9.513	9.51374	11	0.024	9.538	57
4	9.46758	16	0.020	9.487	9.49153	16	0.022	9.513	9.51411	15	0.025	9.539	56
5	9.46800	21	0.020	9.488	9.49192	20	0.022	9.514	9.51447	19	0.025	9.539	55
6	9.46841	25	0.020	9.488	9.49231	23	0.022	9.514	9.51484	22	0.025	9.539	54
7	9.46882	29	0.020	9.488	9.49269	27	0.022	9.515	9.51520	26	0.025	9.540	53
8	9.46923	33	0.020	9.489	9.49308	31	0.022	9.515	9.51557	30	0.025	9.540	52
9	9.46964	37	0.020	9.489	9.49347	35	0.022	9.516	9.51593	33	0.025	9.541	51
10	9.47005	41	0.020	9.490	9.49385	38	0.022	9.516	9.51629	30	0.025	9.541	50
11	9.47045	4	0.020	9.490	9.49424	4	0.022	9.516	9.51666	4	0.025	9.541	49
12	9.47086	8	0.020	9.491	9.49462	8	0.022	9.517	9.51702	7	0.025	9.542	48
13	9.47127	12	0.020	9.491	9.49500	11	0.022	9.517	9.51738	11	0.025	9.542	47
14	9.47168	16	0.020	9.492	9.49539	15	0.022	9.518	9.51774	14	0.025	9.543	46
15	9.47209	21	0.020	9.492	9.49577	19	0.022	9.518	9.51811	18	0.025	9.543	45
16	9.47249	25	0.020	9.493	9.49615	23	0.022	9.519	9.51847	22	0.025	9.543	44
17	9.47290	29	0.020	9.493	9.49654	27	0.022	9.519	9.51883	25	0.025	9.544	43
18	9.47330	33	0.020	9.493	9.49692	30	0.023	9.519	9.51919	29	0.025	9.544	42
19	9.47371	37	0.020	9.494	9.49730	34	0.023	9.520	9.51955	32	0.025	9.545	41
20	9.47411	40	0.020	9.494	9.49768	38	0.023	9.520	9.51991	36	0.025	9.545	40
21	9.47452	4	0.020	9.495	9.49806	4	0.023	9.521	9.52027	4	0.025	9.546	39
22	9.47492	8	0.020	9.495	9.49844	8	0.023	9.521	9.52063	7	0.025	9.546	38
23	9.47533	12	0.020	9.496	9.49882	11	0.023	9.522	9.52099	11	0.025	9.546	37
24	9.47573	16	0.020	9.496	9.49920	15	0.023	9.522	9.52135	14	0.025	9.547	36
25	9.47613	20	0.020	9.497	9.49958	19	0.023	9.522	9.52171	18	0.025	9.547	35
26	9.47654	24	0.020	9.497	9.49996	23	0.023	9.523	9.52207	22	0.025	9.548	34
27	9.47694	28	0.020	9.497	9.50034	27	0.023	9.523	9.52242	25	0.026	9.548	33
28	9.47734	32	0.021	9.498	9.50072	30	0.023	9.524	9.52278	29	0.026	9.548	32
29	9.47774	36	0.021	9.498	9.50110	34	0.023	9.524	9.52314	32	0.026	9.549	31
30	9.47814	40	0.021	9.499	9.50148	38	0.023	9.525	9.52350	36	0.026	9.549	30
31	9.47854	4	0.021	9.499	9.50185	4	0.023	9.525	9.52385	4	0.026	9.550	29
32	9.47894	8	0.021	9.500	9.50223	8	0.023	9.525	9.52421	7	0.026	9.550	28
33	9.47934	12	0.021	9.500	9.50261	11	0.023	9.526	9.52456	11	0.026	9.550	27
34	9.47974	16	0.021	9.500	9.50298	15	0.023	9.526	9.52492	14	0.026	9.551	26
35	9.48014	20	0.021	9.501	9.50336	19	0.023	9.527	9.52527	18	0.026	9.551	25
36	9.48054	24	0.021	9.501	9.50374	23	0.023	9.527	9.52563	22	0.026	9.552	24
37	9.48094	28	0.021	9.502	9.50411	27	0.023	9.527	9.52598	25	0.026	9.552	23
38	9.48133	32	0.021	9.502	9.50449	30	0.023	9.528	9.52634	29	0.026	9.552	22
39	9.48173	36	0.021	9.503	9.50486	34	0.023	9.528	9.52669	32	0.026	9.553	21
40	9.48213	39	0.021	9.503	9.50523	37	0.023	9.529	9.52705	35	0.026	9.553	20
41	9.48252	4	0.021	9.504	9.50561	4	0.024	9.529	9.52740	4	0.026	9.554	19
42	9.48292	8	0.021	9.504	9.50598	7	0.024	9.530	9.52775	7	0.026	9.554	18
43	9.48332	12	0.021	9.504	9.50635	11	0.024	9.530	9.52811	11	0.026	9.554	17
44	9.48371	16	0.021	9.505	9.50673	15	0.024	9.530	9.52846	14	0.026	9.555	16
45	9.48411	20	0.021	9.505	9.50710	19	0.024	9.531	9.52881	18	0.026	9.555	15
46	9.48450	23	0.021	9.506	9.50747	22	0.024	9.531	9.52916	21	0.026	9.556	14
47	9.48490	27	0.021	9.506	9.50784	26	0.024	9.532	9.52951	25	0.026	9.556	13
48	9.48529	31	0.021	9.507	9.50821	30	0.024	9.532	9.52986	28	0.026	9.556	12
49	9.48568	35	0.021	9.507	9.50858	33	0.024	9.532	9.53021	32	0.027	9.557	11
50	9.48607	39	0.021	9.507	9.50896	37	0.024	9.533	9.53056	35	0.027	9.557	10
51	9.48647	4	0.021	9.508	9.50933	4	0.024	9.533	9.53092	4	0.027	9.558	9
52	9.48686	8	0.021	9.508	9.50970	7	0.024	9.534	9.53126	7	0.027	9.558	8
53	9.48725	12	0.022	9.509	9.51007	11	0.024	9.534	9.53161	11	0.027	9.558	7
54	9.48764	16	0.022	9.509	9.51043	15	0.024	9.535	9.53196	14	0.027	9.559	6
55	9.48803	20	0.022	9.510	9.51080	19	0.024	9.535	9.53231	18	0.027	9.559	5
56	9.48842	23	0.022	9.510	9.51117	22	0.024	9.535	9.53266	21	0.027	9.559	4
57	9.48881	27	0.022	9.510	9.51154	26	0.024	9.536	9.53301	25	0.027	9.560	3
58	9.48920	31	0.022	9.511	9.51191	30	0.024	9.536	9.53336	28	0.027	9.560	2
59	9.48959	35	0.022	9.511	9.51227	33	0.024	9.537	9.53370	32	0.027	9.561	1
60	9.48998		0.022	9.512	9.51264		0.024	9.537	9.53405		0.027	9.561	0

	A_3	Z_3	Z_4	A_3	Z_3	Z_4	A_3	Z_3	Z_4	′
	162° (342° | 162°)			161° (341° | 161°)			160° (340° | 160°)			

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 土 K < 90° ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 l 与 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

,	20° 200° | 20°				21° 201° | 21°				22° 202° | 22°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.53405	35	0.027	9.561	9.55433	33	0.030	9.584	9.57358	31	0.033	9.606	60
1	9.53440	4	0.027	9.561	9.55466	3	0.030	9.585	9.57389	3	0.033	9.607	59
2	9.53475	7	0.027	9.562	9.55499	7	0.030	9.585	9.57420	6	0.033	9.607	58
3	9.53509	11	0.027	9.562	9.55532	10	0.030	9.585	9.57451	9	0.033	9.607	57
4	9.53544	14	0.027	9.563	9.55564	13	0.030	9.586	9.57482	12	0.033	9.608	56
5	9.53578	18	0.027	9.563	9.55597	17	0.030	9.586	9.57514	16	0.033	9.608	55
6	9.53613	21	0.027	9.563	9.55630	20	0.030	9.586	9.57545	19	0.033	9.609	54
7	9.53647	25	0.027	9.564	9.55663	23	0.030	9.587	9.57576	22	0.033	9.609	53
8	9.53682	28	0.027	9.564	9.55695	26	0.030	9.587	9.57607	25	0.033	9.609	52
9	9.53716	32	0.027	9.565	9.55728	30	0.030	9.588	9.57638	28	0.033	9.610	51
10	9.53751	34	0.027	9.565	9.55761	32	0.030	9.588	9.57669	31	0.033	9.610	50
11	9.53785	3	0.028	9.565	9.55793	3	0.030	9.588	9.57700	3	0.033	9.610	49
12	9.53819	7	0.028	9.566	9.55826	6	0.030	9.589	9.57731	6	0.033	9.611	48
13	9.53854	10	0.028	9.566	9.55858	10	0.030	9.589	9.57762	9	0.034	9.611	47
14	9.53888	14	0.028	9.567	9.55891	13	0.031	9.589	9.57793	12	0.034	9.611	46
15	9.53922	17	0.028	9.567	9.55923	16	0.031	9.590	9.57824	16	0.034	9.612	45
16	9.53957	20	0.028	9.567	9.55956	19	0.031	9.590	9.57855	19	0.034	9.612	44
17	9.53991	24	0.028	9.568	9.55988	22	0.031	9.591	9.57885	22	0.034	9.613	43
18	9.54025	27	0.028	9.568	9.56021	26	0.031	9.591	9.57916	25	0.034	9.613	42
19	9.54059	31	0.028	9.568	9.56053	29	0.031	9.591	9.57947	28	0.034	9.613	41
20	9.54093	34	0.028	9.569	9.56085	32	0.031	9.592	9.57978	31	0.034	9.614	40
21	9.54127	3	0.028	9.569	9.56118	3	0.031	9.592	9.58008	3	0.034	9.614	39
22	9.54161	7	0.028	9.570	9.56150	6	0.031	9.592	9.58039	6	0.034	9.614	38
23	9.54195	10	0.028	9.570	9.56182	10	0.031	9.593	9.58070	9	0.034	9.615	37
24	9.54229	14	0.028	9.570	9.56215	13	0.031	9.593	9.58101	12	0.034	9.615	36
25	9.54263	17	0.028	9.571	9.56247	16	0.031	9.594	9.58131	16	0.034	9.615	35
26	9.54297	20	0.028	9.571	9.56279	19	0.031	9.594	9.58162	19	0.034	9.616	34
27	9.54331	24	0.028	9.572	9.56311	22	0.031	9.594	9.58192	22	0.034	9.616	33
28	9.54365	27	0.028	9.572	9.56343	26	0.031	9.595	9.58223	25	0.034	9.617	32
29	9.54399	31	0.028	9.572	9.56375	29	0.031	9.595	9.58253	28	0.034	9.617	31
30	9.54433	34	0.028	9.573	9.56408	32	0.031	9.595	9.58284	30	0.034	9.617	30
31	9.54466	3	0.028	9.573	9.56440	3	0.031	9.596	9.58314	3	0.034	9.618	29
32	9.54500	7	0.029	9.574	9.56472	6	0.031	9.596	9.58345	6	0.034	9.618	28
33	9.54534	10	0.029	9.574	9.56504	10	0.031	9.597	9.58375	9	0.035	9.618	27
34	9.54567	14	0.029	9.574	9.56536	13	0.032	9.597	9.58406	12	0.035	9.619	26
35	9.54601	17	0.029	9.575	9.56568	16	0.032	9.597	9.58436	15	0.035	9.619	25
36	9.54635	20	0.029	9.575	9.56599	19	0.032	9.598	9.58467	18	0.035	9.619	24
37	9.54668	24	0.029	9.575	9.56631	22	0.032	9.598	9.58497	21	0.035	9.620	23
38	9.54702	27	0.029	9.576	9.56663	26	0.032	9.598	9.58527	24	0.035	9.620	22
39	9.54735	31	0.029	9.576	9.56695	29	0.032	9.599	9.58557	27	0.035	9.620	21
40	9.54769	33	0.029	9.577	9.56727	32	0.032	9.599	9.58588	30	0.035	9.621	20
41	9.54802	3	0.029	9.577	9.56759	3	0.032	9.599	9.58618	3	0.035	9.621	19
42	9.54836	7	0.029	9.577	9.56790	6	0.032	9.600	9.58648	6	0.035	9.621	18
43	9.54869	10	0.029	9.578	9.56822	10	0.032	9.600	9.58678	9	0.035	9.622	17
44	9.54903	13	0.029	9.578	9.56854	13	0.032	9.601	9.58709	12	0.035	9.622	16
45	9.54936	17	0.029	9.578	9.56886	16	0.032	9.601	9.58739	15	0.035	9.623	15
46	9.54969	20	0.029	9.579	9.56917	19	0.032	9.601	9.58769	18	0.035	9.623	14
47	9.55003	23	0.029	9.579	9.56949	22	0.032	9.602	9.58799	21	0.035	9.623	13
48	9.55036	26	0.029	9.580	9.56980	26	0.032	9.602	9.58829	24	0.035	9.624	12
49	9.55069	30	0.029	9.580	9.57012	29	0.032	9.602	9.58859	27	0.035	9.624	11
50	9.55102	33	0.029	9.580	9.57044	31	0.032	9.603	9.58889	30	0.035	9.624	10
51	9.55136	3	0.029	9.581	9.57075	3	0.032	9.603	9.58919	3	0.035	9.625	9
52	9.55169	7	0.029	9.581	9.57107	6	0.032	9.603	9.58949	6	0.036	9.625	8
53	9.55202	10	0.030	9.582	9.57138	9	0.032	9.604	9.58979	9	0.036	9.625	7
54	9.55235	13	0.030	9.582	9.57169	12	0.033	9.604	9.59009	12	0.036	9.626	6
55	9.55268	17	0.030	9.582	9.57201	16	0.033	9.605	9.59039	15	0.036	9.626	5
56	9.55301	20	0.030	9.583	9.57232	19	0.033	9.605	9.59069	18	0.036	9.626	4
57	9.55334	23	0.030	9.583	9.57264	22	0.033	9.605	9.59098	21	0.036	9.627	3
58	9.55367	26	0.030	9.583	9.57295	25	0.033	9.606	9.59128	24	0.036	9.627	2
59	9.55400	30	0.030	9.584	9.57326	28	0.033	9.606	9.59158	27	0.036	9.628	1
60	9.55433		0.030	9.584	9.57358		0.033	9.606	9.59188		0.036	9.628	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	,
	159° 339° | 159				158° 338° | 158				157° 337° | 157				

Zガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 与 $K<90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 l 与 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

,	23° 203° | 23°				24° 204° | 24°				25° 205° | 25°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.59188	30	0.036	9.628	9.60931	28	0.039	9.649	9.62595	27	0.043	9.669	60
1	9.59218	3	0.036	9.628	9.60960	3	0.039	9.649	9.62622	3	0.043	9.669	59
2	9.59247	6	0.036	9.629	9.60988	6	0.039	9.649	9.62649	5	0.043	9.669	58
3	9.59277	9	0.036	9.629	9.61016	8	0.039	9.650	9.62676	8	0.043	9.670	57
4	9.59307	12	0.036	9.629	9.61045	11	0.039	9.650	9.62703	11	0.043	9.670	56
5	9.59336	15	0.036	9.630	9.61073	14	0.040	9.650	9.62730	14	0.043	9.670	55
6	9.59366	18	0.036	9.630	9.61101	17	0.040	9.651	9.62757	16	0.043	9.671	54
7	9.59396	21	0.036	9.630	9.61129	20	0.040	9.651	9.62784	19	0.043	9.671	53
8	9.59425	24	0.036	9.631	9.61158	22	0.040	9.651	9.62811	22	0.043	9.671	52
9	9.59455	27	0.036	9.631	9.61186	25	0.040	9.652	9.62838	24	0.043	9.672	51
10	9.59484	29	0.037	9.631	9.61214	28	0.040	9.652	9.62865	27	0.043	9.672	50
11	9.59514	3	0.037	9.632	9.61242	3	0.040	9.652	9.62892	3	0.043	9.672	49
12	9.59543	6	0.037	9.632	9.61270	6	0.040	9.653	9.62918	5	0.043	9.673	48
13	9.59573	9	0.037	9.632	9.61298	8	0.040	9.653	9.62945	8	0.043	9.673	47
14	9.59602	12	0.037	9.633	9.61326	11	0.040	9.653	9.62972	11	0.044	9.673	46
15	9.59632	15	0.037	9.633	9.61354	14	0.040	9.654	9.62999	14	0.044	9.674	45
16	9.59661	17	0.037	9.633	9.61382	17	0.040	9.654	9.63026	16	0.044	9.674	44
17	9.59690	20	0.037	9.634	9.61411	20	0.040	9.654	9.63052	19	0.044	9.674	43
18	9.59720	23	0.037	9.634	9.61438	22	0.040	9.655	9.63079	22	0.044	9.675	42
19	9.59749	26	0.037	9.634	9.61466	25	0.040	9.655	9.63106	24	0.044	9.675	41
20	9.59778	29	0.037	9.635	9.61494	28	0.040	9.655	9.63133	27	0.044	9.675	40
21	9.59808	3	0.037	9.635	9.61522	3	0.040	9.656	9.63159	3	0.044	9.676	39
22	9.59837	6	0.037	9.636	9.61550	6	0.041	9.656	9.63186	5	0.044	9.676	38
23	9.59866	9	0.037	9.636	9.61578	8	0.041	9.656	9.63213	8	0.044	9.676	37
24	9.59895	12	0.037	9.636	9.61606	11	0.041	9.657	9.63239	11	0.044	9.677	36
25	9.59924	15	0.037	9.637	9.61634	14	0.041	9.657	9.63266	14	0.044	9.677	35
26	9.59954	17	0.037	9.637	9.61662	17	0.041	9.657	9.63292	16	0.044	9.677	34
27	9.59983	20	0.037	9.637	9.61689	20	0.041	9.658	9.63319	19	0.044	9.678	33
28	9.60012	23	0.037	9.638	9.61717	22	0.041	9.658	9.63345	22	0.044	9.678	32
29	9.60041	26	0.038	9.638	9.61745	25	0.041	9.658	9.63372	24	0.044	9.678	31
30	9.60070	29	0.038	9.638	9.61773	28	0.041	9.659	9.63398	26	0.045	9.678	30
31	9.60099	3	0.038	9.639	9.61800	3	0.041	9.659	9.63425	3	0.045	9.679	29
32	9.60128	6	0.038	9.639	9.61828	6	0.041	9.659	9.63451	5	0.045	9.679	28
33	9.60157	9	0.038	9.639	9.61856	8	0.041	9.660	9.63478	8	0.045	9.679	27
34	9.60186	12	0.038	9.640	9.61883	11	0.041	9.660	9.63504	10	0.045	9.680	26
35	9.60215	15	0.038	9.640	9.61911	14	0.041	9.660	9.63531	13	0.045	9.680	25
36	9.60244	17	0.038	9.640	9.61939	17	0.041	9.661	9.63557	16	0.045	9.680	24
37	9.60273	20	0.038	9.641	9.61966	20	0.041	9.661	9.63583	18	0.045	9.681	23
38	9.60302	23	0.038	9.641	9.61994	22	0.041	9.661	9.63610	21	0.045	9.681	22
39	9.60331	26	0.038	9.641	9.62021	25	0.041	9.662	9.63636	23	0.045	9.681	21
40	9.60359	29	0.038	9.642	9.62049	27	0.042	9.662	9.63662	26	0.045	9.682	20
41	9.60388	3	0.038	9.642	9.62076	3	0.042	9.662	9.63689	3	0.045	9.682	19
42	9.60417	6	0.038	9.642	9.62104	5	0.042	9.663	9.63715	5	0.045	9.682	18
43	9.60446	9	0.038	9.643	9.62131	8	0.042	9.663	9.63741	8	0.045	9.683	17
44	9.60474	12	0.038	9.643	9.62159	11	0.042	9.663	9.63767	10	0.045	9.683	16
45	9.60503	15	0.038	9.643	9.62186	14	0.042	9.664	9.63794	13	0.045	9.683	15
46	9.60532	17	0.038	9.644	9.62214	16	0.042	9.664	9.63820	16	0.045	9.684	14
47	9.60561	20	0.039	9.644	9.62241	19	0.042	9.664	9.63846	18	0.046	9.684	13
48	9.60589	23	0.039	9.644	9.62268	22	0.042	9.665	9.63872	21	0.046	9.684	12
49	9.60618	26	0.039	9.645	9.62296	24	0.042	9.665	9.63898	23	0.046	9.685	11
50	9.60646	28	0.039	9.645	9.62323	27	0.042	9.665	9.63924	26	0.046	9.685	10
51	9.60675	3	0.039	9.646	9.62350	3	0.042	9.666	9.63950	3	0.046	9.685	9
52	9.60704	6	0.039	9.646	9.62377	5	0.042	9.666	9.63976	5	0.046	9.686	8
53	9.60732	8	0.039	9.646	9.62405	8	0.042	9.666	9.64002	8	0.046	9.686	7
54	9.60761	11	0.039	9.647	9.62432	11	0.042	9.667	9.64028	10	0.046	9.686	6
55	9.60789	14	0.039	9.647	9.62459	14	0.042	9.667	9.64054	13	0.046	9.687	5
56	9.60818	17	0.039	9.647	9.62486	16	0.042	9.667	9.64080	16	0.046	9.687	4
57	9.60846	20	0.039	9.648	9.62513	19	0.043	9.668	9.64106	18	0.046	9.687	3
58	9.60875	22	0.039	9.648	9.62541	22	0.043	9.668	9.64132	21	0.046	9.688	2
59	9.60903	25	0.039	9.648	9.62568	24	0.043	9.668	9.64158	23	0.046	9.688	1
60	9.60931		0.039	9.649	9.62595		0.043	9.669	9.64184		0.046	9.688	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	,
	156° 326° | 156°				155° 325° | 155°				154° 324° | 154°				

Zガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 与 $K<90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　$l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	26° 206° 26°				27° 207° 27°				28° 208° 28°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.64184	26	0.046	9.688	9.65705	25	0.050	9.707	9.67161	24	0.054	9.726	60
1	9.64210	3	0.046	9.689	9.65729	3	0.050	9.707	9.67185	2	0.054	9.726	59
2	9.64236	5	0.046	9.689	9.65754	5	0.050	9.708	9.67208	5	0.054	9.726	58
3	9.64262	8	0.047	9.689	9.65779	8	0.050	9.708	9.67232	7	0.054	9.727	57
4	9.64288	10	0.047	9.689	9.65804	10	0.050	9.708	9.67256	10	0.054	9.727	56
5	9.64313	13	0.047	9.690	9.65828	13	0.050	9.709	9.67280	12	0.054	9.727	55
6	9.64339	16	0.047	9.690	9.65853	15	0.051	9.709	9.67303	14	0.054	9.728	54
7	9.64365	18	0.047	9.690	9.65878	18	0.051	9.709	9.67327	17	0.055	9.728	53
8	9.64391	21	0.047	9.691	9.65902	20	0.051	9.710	9.67350	19	0.055	9.728	52
9	9.64417	23	0.047	9.691	9.65927	23	0.051	9.710	9.67374	22	0.055	9.728	51
10	9.64442	26	0.047	9.691	9.65952	25	0.051	9.710	9.67398	24	0.055	9.729	50
11	9.64468	3	0.047	9.692	9.65976	3	0.051	9.711	9.67421	2	0.055	9.729	49
12	9.64494	5	0.047	9.692	9.66001	5	0.051	9.711	9.67445	5	0.055	9.729	48
13	9.64519	8	0.047	9.692	9.66025	8	0.051	9.711	9.67468	7	0.055	9.730	47
14	9.64545	10	0.047	9.693	9.66050	10	0.051	9.712	9.67492	10	0.055	9.730	46
15	9.64571	13	0.047	9.693	9.66075	13	0.051	9.712	9.67515	12	0.055	9.730	45
16	9.64596	16	0.047	9.693	9.66099	15	0.051	9.712	9.67539	14	0.055	9.731	44
17	9.64622	18	0.047	9.694	9.66124	18	0.051	9.712	9.67562	17	0.055	9.731	43
18	9.64647	21	0.047	9.694	9.66148	20	0.051	9.713	9.67586	19	0.055	9.731	42
19	9.64673	23	0.048	9.694	9.66173	23	0.051	9.713	9.67609	22	0.055	9.731	41
20	9.64698	25	0.048	9.695	9.66197	24	0.051	9.713	9.67633	23	0.055	9.732	40
21	9.64724	3	0.048	9.695	9.66221	2	0.051	9.714	9.67656	2	0.055	9.732	39
22	9.64749	5	0.048	9.695	9.66246	5	0.052	9.714	9.67680	5	0.056	9.732	38
23	9.64775	8	0.048	9.696	9.66270	7	0.052	9.714	9.67703	7	0.056	9.733	37
24	9.64800	10	0.048	9.696	9.66295	10	0.052	9.715	9.67726	9	0.056	9.733	36
25	9.64826	13	0.048	9.696	9.66319	12	0.052	9.715	9.67750	12	0.056	9.733	35
26	9.64851	15	0.048	9.696	9.66343	14	0.052	9.715	9.67773	14	0.056	9.734	34
27	9.64877	18	0.048	9.697	9.66368	17	0.052	9.716	9.67796	16	0.056	9.734	33
28	9.64902	20	0.048	9.697	9.66392	19	0.052	9.716	9.67820	18	0.056	9.734	32
29	9.64927	23	0.048	9.697	9.66416	22	0.052	9.716	9.67843	21	0.056	9.734	31
30	9.64953	25	0.048	9.698	9.66441	24	0.052	9.716	9.67866	23	0.056	9.735	30
31	9.64978	3	0.048	9.698	9.66465	2	0.052	9.717	9.67890	2	0.056	9.735	29
32	9.65003	5	0.048	9.698	9.66489	5	0.052	9.717	9.67913	5	0.056	9.735	28
33	9.65029	8	0.048	9.699	9.66513	7	0.052	9.717	9.67936	7	0.056	9.736	27
34	9.65054	10	0.048	9.699	9.66537	10	0.052	9.718	9.67959	9	0.056	9.736	26
35	9.65079	13	0.049	9.699	9.66562	12	0.052	9.718	9.67982	12	0.056	9.736	25
36	9.65104	15	0.049	9.700	9.66586	14	0.052	9.718	9.68006	14	0.057	9.737	24
37	9.65130	18	0.049	9.700	9.66610	17	0.053	9.719	9.68029	16	0.057	9.737	23
38	9.65155	20	0.049	9.700	9.66634	19	0.053	9.719	9.68052	18	0.057	9.737	22
39	9.65180	23	0.049	9.701	9.66658	22	0.053	9.719	9.68075	21	0.057	9.737	21
40	9.65205	25	0.049	9.701	9.66682	24	0.053	9.720	9.68098	23	0.057	9.738	20
41	9.65230	3	0.049	9.701	9.66706	2	0.053	9.720	9.68121	2	0.057	9.738	19
42	9.65255	5	0.049	9.702	9.66731	5	0.053	9.720	9.68144	5	0.057	9.738	18
43	9.65281	8	0.049	9.702	9.66755	7	0.053	9.720	9.68167	7	0.057	9.739	17
44	9.65306	10	0.049	9.702	9.66779	10	0.053	9.721	9.68190	9	0.057	9.739	16
45	9.65331	13	0.049	9.702	9.66803	12	0.053	9.721	9.68213	12	0.057	9.739	15
46	9.65356	15	0.049	9.703	9.66827	14	0.053	9.721	9.68237	14	0.057	9.740	14
47	9.65381	18	0.049	9.703	9.66851	17	0.053	9.722	9.68260	16	0.057	9.740	13
48	9.65406	20	0.049	9.703	9.66875	19	0.053	9.722	9.68283	18	0.057	9.740	12
49	9.65431	23	0.049	9.704	9.66899	22	0.053	9.722	9.68305	21	0.057	9.740	11
50	9.65456	25	0.049	9.704	9.66922	24	0.053	9.723	9.68328	23	0.057	9.741	10
51	9.65481	3	0.050	9.704	9.66946	2	0.053	9.723	9.68351	2	0.058	9.741	9
52	9.65506	5	0.050	9.705	9.66970	5	0.054	9.723	9.68374	5	0.058	9.741	8
53	9.65531	8	0.050	9.705	9.66994	7	0.054	9.724	9.68397	7	0.058	9.742	7
54	9.65556	10	0.050	9.705	9.67018	10	0.054	9.724	9.68420	9	0.058	9.742	6
55	9.65580	13	0.050	9.706	9.67042	12	0.054	9.724	9.68443	12	0.058	9.742	5
56	9.65605	15	0.050	9.706	9.67066	14	0.054	9.724	9.68466	14	0.058	9.743	4
57	9.65630	18	0.050	9.706	9.67090	17	0.054	9.725	9.68489	16	0.058	9.743	3
58	9.65655	20	0.050	9.707	9.67113	19	0.054	9.725	9.68512	18	0.058	9.743	2
59	9.65680	23	0.050	9.707	9.67137	22	0.054	9.725	9.68534	21	0.058	9.743	1
60	9.65705		0.050	9.707	9.67161		0.054	9.726	9.68557		0.058	9 744	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	
	153° 333° 153°				152° 332° 152°				151° 331° 151°				′

Zガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　$l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	29° 209° 29°				30° 210° 30°				31° 211° 31°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.68557	23	0.058	9.744	9.69897	22	0.062	9.761	9.71184	21	0.067	9.779	60
1	9.68580	2	0.058	9.744	9.69919	2	0.063	9.762	9.71205	2	0.067	9.779	59
2	9.68603	5	0.058	9.744	9.69941	4	0.063	9.762	9.71226	4	0.067	9.779	58
3	9.68625	7	0.058	9.745	9.69963	7	0.063	9.762	9.71247	6	0.067	9.780	57
4	9.68648	9	0.058	9.745	9.69984	9	0.063	9.763	9.71268	8	0.067	9.780	56
5	9.68671	12	0.059	9.745	9.70006	11	0.063	9.763	9.71289	11	0.067	9.780	55
6	9.68694	14	0.059	9.746	9.70028	13	0.063	9.763	9.71310	13	0.067	9.780	54
7	9.68716	16	0.059	9.746	9.70050	15	0.063	9.763	9.71331	15	0.067	9.781	53
8	9.68739	18	0.059	9.746	9.70072	18	0.063	9.764	9.71352	17	0.068	9.781	52
9	9.68762	21	0.059	9.746	9.70093	20	0.063	9.764	9.71373	19	0.068	9.781	51
10	9.68784	23	0.059	9.747	9.70115	22	0.063	9.764	9.71393	21	0.068	9.782	50
11	9.68807	2	0.059	9.747	9.70137	2	0.063	9.765	9.71414	2	0.068	9.782	49
12	9.68829	5	0.059	9.747	9.70159	4	0.063	9.765	9.71435	4	0.068	9.782	48
13	9.68852	7	0.059	9.748	9.70180	7	0.063	9.765	9.71456	6	0.068	9.782	47
14	9.68875	9	0.059	9.748	9.70202	9	0.063	9.766	9.71477	8	0.068	9.783	46
15	9.68897	12	0.059	9.748	9.70224	11	0.064	9.766	9.71498	11	0.068	9.783	45
16	9.68920	14	0.059	9.749	9.70245	13	0.064	9.766	9.71519	13	0.068	9.783	44
17	9.68942	16	0.059	9.749	9.70267	15	0.064	9.766	9.71539	15	0.068	9.784	43
18	9.68965	18	0.059	9.749	9.70288	18	0.064	9.767	9.71560	17	0.068	9.784	42
19	9.68987	21	0.060	9.749	9.70310	20	0.064	9.767	9.71581	19	0.068	9.784	41
20	9.69010	22	0.060	9.750	9.70332	22	0.064	9.767	9.71602	21	0.068	9.784	40
21	9.69032	2	0.060	9.750	9.70353	2	0.064	9.768	9.71622	2	0.069	9.785	39
22	9.69055	4	0.060	9.750	9.70375	4	0.064	9.768	9.71643	4	0.069	9.785	38
23	9.69077	7	0.060	9.751	9.70396	7	0.064	9.768	9.71664	6	0.069	9.785	37
24	9.69100	9	0.060	9.751	9.70418	9	0.064	9.768	9.71685	8	0.069	9.786	36
25	9.69122	11	0.060	9.751	9.70439	11	0.064	9.769	9.71705	11	0.069	9.786	35
26	9.69144	13	0.060	9.751	9.70461	13	0.064	9.769	9.71726	13	0.069	9.786	34
27	9.69167	15	0.060	9.752	9.70482	15	0.064	9.769	9.71747	15	0.069	9.786	33
28	9.69189	18	0.060	9.752	9.70504	18	0.065	9.770	9.71767	17	0.069	9.787	32
29	9.69212	20	0.060	9.752	9.70525	20	0.065	9.770	9.71788	19	0.069	9.787	31
30	9.69234	22	0.060	9.753	9.70547	21	0.065	9.770	9.71809	21	0.069	9.787	30
31	9.69256	2	0.060	9.753	9.70568	2	0.065	9.770	9.71829	2	0.069	9.788	29
32	9.69279	4	0.060	9.753	9.70590	4	0.065	9.771	9.71850	4	0.069	9.788	28
33	9.69301	7	0.061	9.754	9.70611	6	0.065	9.771	9.71870	6	0.069	9.788	27
34	9.69323	9	0.061	9.754	9.70633	8	0.065	9.771	9.71891	8	0.070	9.788	26
35	9.69345	11	0.061	9.754	9.70654	11	0.065	9.772	9.71911	11	0.070	9.789	25
36	9.69368	13	0.061	9.754	9.70675	13	0.065	9.772	9.71932	13	0.070	9.789	24
37	9.69390	15	0.061	9.755	9.70697	15	0.065	9.772	9.71952	15	0.070	9.789	23
38	9.69412	18	0.061	9.755	9.70718	17	0.065	9.772	9.71973	17	0.070	9.790	22
39	9.69434	20	0.061	9.755	9.70739	19	0.065	9.773	9.71994	19	0.070	9.790	21
40	9.69456	22	0.061	9.756	9.70761	21	0.065	9.773	9.72014	20	0.070	9.790	20
41	9.69479	2	0.061	9.756	9.70782	2	0.066	9.773	9.72034	2	0.070	9.790	19
42	9.69501	4	0.061	9.756	9.70803	4	0.066	9.774	9.72055	4	0.070	9.791	18
43	9.69523	7	0.061	9.756	9.70824	6	0.066	9.774	9.72075	6	0.070	9.791	17
44	9.69545	9	0.061	9.757	9.70846	8	0.066	9.774	9.72096	8	0.070	9.791	16
45	9.69567	11	0.061	9.757	9.70867	11	0.066	9.774	9.72116	10	0.070	9.792	15
46	9.69589	13	0.061	9.757	9.70888	13	0.066	9.775	9.72137	12	0.070	9.792	14
47	9.69611	15	0.062	9.758	9.70909	15	0.066	9.775	9.72157	14	0.071	9.792	13
48	9.69633	18	0.062	9.758	9.70931	17	0.066	9.775	9.72177	16	0.071	9.792	12
49	9.69655	20	0.062	9.758	9.70952	19	0.066	9.776	9.72198	18	0.071	9.793	11
50	9.69677	22	0.062	9.759	9.70973	21	0.066	9.776	9.72218	20	0.071	9.793	10
51	9.69699	2	0.062	9.759	9.70994	2	0.066	9.776	9.72238	2	0.071	9.793	9
52	9.69721	4	0.062	9.759	9.71015	4	0.066	9.776	9.72259	4	0.071	9.794	8
53	9.69743	7	0.062	9.759	9.71036	6	0.066	9.777	9.72279	6	0.071	9.794	7
54	9.69765	9	0.062	9.760	9.71058	8	0.066	9.777	9.72299	8	0.071	9.794	6
55	9.69787	11	0.062	9.760	9.71079	11	0.067	9.777	9.72320	10	0.071	9.794	5
56	9.69809	13	0.062	9.760	9.71100	13	0.067	9.778	9.72340	12	0.071	9.795	4
57	9.69831	15	0.062	9.761	9.71121	15	0.067	9.778	9.72360	14	0.071	9.795	3
58	9.69853	18	0.062	9.761	9.71142	17	0.067	9.778	9.72381	16	0.071	9.795	2
59	9.69875	20	0.062	9.761	9.71163	19	0.067	9.778	9.72401	18	0.072	9.796	1
60	9.69897		0.062	9.761	9.71184		0.067	9.779	9.72421		0.072	9.796	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	
	150° 330° 150°				149° 329° 149°				148° 328° 148°				′

Zガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　$l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	32° 212° 32°				33° 213° 33°				34° 214° 34°				′
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.72421	20	0.072	9.796	9.73611	19	0.076	9.813	9.74756	19	0.081	9.829	60
1	9.72441	2	0.072	9.796	9.73630	2	0.076	9.813	9.74775	2	0.082	9.829	59
2	9.72461	4	0.072	9.796	9.73650	4	0.077	9.813	9.74794	4	0.082	9.830	58
3	9.72482	6	0.072	9.797	9.73669	6	0.077	9.813	9.74812	6	0.082	9.830	57
4	9.72502	8	0.072	9.797	9.73689	8	0.077	9.814	9.74831	8	0.082	9.830	56
5	9.72522	10	0.072	9.797	9.73708	10	0.077	9.814	9.74850	10	0.082	9.830	55
6	9.72542	12	0.072	9.797	9.73727	11	0.077	9.814	9.74868	11	0.082	9.831	54
7	9.72562	14	0.072	9.798	9.73747	13	0.077	9.814	9.74887	13	0.082	9.831	53
8	9.72582	16	0.072	9.798	9.73766	15	0.077	9.815	9.74906	15	0.082	9.831	52
9	9.72602	18	0.072	9.798	9.73785	17	0.077	9.815	9.74924	17	0.082	9.831	51
10	9.72622	20	0.072	9.799	9.73805	19	0.077	9.815	9.74943	19	0.082	9.832	50
11	9.72643	2	0.072	9.799	9.73824	2	0.077	9.816	9.74961	2	0.082	9.832	49
12	9.72663	4	0.073	9.799	9.73843	4	0.077	9.816	9.74980	4	0.082	9.832	48
13	9.72683	6	0.073	9.799	9.73863	6	0.077	9.816	9.74999	6	0.083	9.833	47
14	9.72703	8	0.073	9.800	9.73882	8	0.078	9.816	9.75017	8	0.083	9.833	46
15	9.72723	10	0.073	9.800	9.73901	10	0.078	9.817	9.75036	10	0.083	9.833	45
16	9.72743	12	0.073	9.800	9.73921	11	0.078	9.817	9.75054	11	0.083	9.833	44
17	9.72763	14	0.073	9.801	9.73940	13	0.078	9.817	9.75073	13	0.083	9.834	43
18	9.72783	16	0.073	9.801	9.73959	15	0.078	9.817	9.75091	15	0.083	9.834	42
19	9.72803	18	0.073	9.801	9.73978	17	0.078	9.818	9.75110	17	0.083	9.834	41
20	9.72823	20	0.073	9.801	9.73997	19	0.078	9.818	9.75128	18	0.083	9.834	40
21	9.72843	2	0.073	9.802	9.74017	2	0.078	9.818	9.75147	2	0.083	9.835	39
22	9.72863	4	0.073	9.802	9.74036	4	0.078	9.819	9.75165	4	0.083	9.835	38
23	9.72883	6	0.073	9.802	9.74055	6	0.078	9.819	9.75184	5	0.083	9.835	37
24	9.72902	8	0.073	9.803	9.74074	8	0.078	9.819	9.75202	7	0.083	9.836	36
25	9.72922	10	0.074	9.803	9.74093	10	0.078	9.819	9.75221	9	0.084	9.836	35
26	9.72942	12	0.074	9.803	9.74113	11	0.079	9.820	9.75239	11	0.084	9.836	34
27	9.72962	14	0.074	9.803	9.74132	13	0.079	9.820	9.75258	13	0.084	9.836	33
28	9.72982	16	0.074	9.804	9.74151	15	0.079	9.820	9.75276	14	0.084	9.837	32
29	9.73002	18	0.074	9.804	9.74170	17	0.079	9.821	9.75294	16	0.084	9.837	31
30	9.73022	20	0.074	9.804	9.74189	19	0.079	9.821	9.75313	18	0.084	9.837	30
31	9.73041	2	0.074	9.804	9.74208	2	0.079	9.821	9.75331	2	0.084	9.837	29
32	9.73061	4	0.074	9.805	9.74227	4	0.079	9.821	9.75350	4	0.084	9.838	28
33	9.73081	6	0.074	9.805	9.74246	6	0.079	9.822	9.75368	5	0.084	9.838	27
34	9.73101	8	0.074	9.805	9.74265	8	0.079	9.822	9.75386	7	0.084	9.838	26
35	9.73121	10	0.074	9.806	9.74284	10	0.079	9.822	9.75405	9	0.084	9.838	25
36	9.73140	12	0.074	9.806	9.74303	11	0.079	9.822	9.75423	11	0.085	9.839	24
37	9.73160	14	0.075	9.806	9.74322	13	0.079	9.823	9.75441	13	0.085	9.839	23
38	9.73180	16	0.075	9.806	9.74341	15	0.080	9.823	9.75459	14	0.085	9.839	22
39	9.73200	18	0.075	9.807	9.74360	17	0.080	9.823	9.75478	16	0.085	9.840	21
40	9.73219	20	0.075	9.807	9.74379	19	0.080	9.824	9.75496	18	0.085	9.840	20
41	9.73239	2	0.075	9.807	9.74398	2	0.080	9.824	9.75514	2	0.085	9.840	19
42	9.73259	4	0.075	9.808	9.74417	4	0.080	9.824	9.75533	4	0.085	9.840	18
43	9.73278	6	0.075	9.808	9.74436	6	0.080	9.824	9.75551	5	0.085	9.841	17
44	9.73298	8	0.075	9.808	9.74455	8	0.080	9.825	9.75569	7	0.085	9.841	16
45	9.73318	10	0.075	9.808	9.74474	10	0.080	9.825	9.75587	9	0.085	9.841	15
46	9.73337	12	0.075	9.809	9.74493	11	0.080	9.825	9.75605	11	0.085	9.841	14
47	9.73357	14	0.075	9.809	9.74512	13	0.080	9.825	9.75624	13	0.085	9.842	13
48	9.73377	16	0.075	9.809	9.74531	15	0.080	9.826	9.75642	14	0.086	9.842	12
49	9.73396	18	0.076	9.809	9.74549	17	0.080	9.826	9.75660	16	0.086	9.842	11
50	9.73416	20	0.076	9.810	9.74568	19	0.081	9.826	9.75678	18	0.086	9.843	10
51	9.73435	2	0.076	9.810	9.74587	2	0.081	9.827	9.75696	2	0.086	9.843	9
52	9.73455	4	0.076	9.810	9.74606	4	0.081	9.827	9.75714	4	0.086	9.843	8
53	9.73474	6	0.076	9.811	9.74625	6	0.081	9.827	9.75733	5	0.086	9.843	7
54	9.73494	8	0.076	9.811	9.74644	8	0.081	9.827	9.75751	7	0.086	9.844	6
55	9.73513	10	0.076	9.811	9.74662	10	0.081	9.828	9.75769	9	0.086	9.844	5
56	9.73533	12	0.076	9.811	9.74681	11	0.081	9.828	9.75787	11	0.086	9.844	4
57	9.73552	14	0.076	9.812	9.74700	13	0.081	9.828	9.75805	13	0.086	9.844	3
58	9.73572	16	0.076	9.812	9.74719	15	0.081	9.828	9.75823	14	0.086	9.845	2
59	9.73591	18	0.076	9.812	9.74737	17	0.081	9.829	9.75841	16	0.087	9.845	1
60	9.73611		0.076	9.813	9.74756		0.081	9.829	9.75859		0.087	9.845	0

	A_3	Z_3	Z_4	A_3	Z_3	Z_4	A_3	Z_3	Z_4	′
	147° 327° 147°			146° 326° 146°			145° 325° 145°			

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　$l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	35° 215° 35°				36° 216° 36°				37° 217° 37°				′
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.75859	18	0.087	9.845	9.76922	17	0.092	9.861	9.77946	17	0.098	9.877	60
1	9.75877	2	0.087	9.845	9.76939	2	0.092	9.862	9.77963	2	0.098	9.877	59
2	9.75895	4	0.087	9.846	9.76957	3	0.092	9.862	9.77980	3	0.098	9.878	58
3	9.75913	5	0.087	9.846	9.76974	5	0.092	9.862	9.77997	5	0.098	9.878	57
4	9.75931	7	0.087	9.846	9.76991	7	0.092	9.862	9.78013	7	0.098	9.878	56
5	9.75949	9	0.087	9.847	9.77009	9	0.093	9.863	9.78030	9	0.098	9.878	55
6	9.75967	11	0.087	9.847	9.77026	10	0.093	9.863	9.78047	10	0.098	9.879	54
7	9.75985	13	0.087	9.847	9.77043	12	0.093	9.863	9.78063	12	0.098	9.879	53
8	9.76003	14	0.087	9.847	9.77061	14	0.093	9.863	9.78080	14	0.098	9.879	52
9	9.76021	16	0.087	9.848	9.77078	15	0.093	9.864	9.78097	15	0.099	9.879	51
10	9.76039	18	0.088	9.848	9.77095	17	0.093	9.864	9.78113	17	0.099	9.880	50
11	9.76057	2	0.088	9.848	9.77112	2	0.093	9.864	9.78130	2	0.099	9.880	49
12	9.76075	4	0.088	9.848	9.77130	3	0.093	9.864	9.78147	3	0.099	9.880	48
13	9.76093	5	0.088	9.849	9.77147	5	0.093	9.865	9.78163	5	0.099	9.881	47
14	9.76111	7	0.088	9.849	9.77164	7	0.093	9.865	9.78180	7	0.099	9.881	46
15	9.76129	9	0.088	9.849	9.77181	9	0.093	9.865	9.78197	9	0.099	9.881	45
16	9.76146	11	0.088	9.850	9.77199	10	0.094	9.866	9.78213	10	0.099	9.881	44
17	9.76164	13	0.088	9.850	9.77216	12	0.094	9.866	9.78230	12	0.099	9.882	43
18	9.76182	14	0.088	9.850	9.77233	14	0.094	9.866	9.78246	14	0.099	9.882	42
19	9.76200	16	0.088	9.850	9.77250	15	0.094	9.866	9.78263	15	0.099	9.882	41
20	9.76218	18	0.088	9.851	9.77268	17	0.094	9.867	9.78280	17	0.100	9.882	40
21	9.76236	2	0.089	9.851	9.77285	2	0.094	9.867	9.78296	2	0.100	9.883	39
22	9.76253	4	0.089	9.851	9.77302	3	0.094	9.867	9.78313	3	0.100	9.883	38
23	9.76271	5	0.089	9.851	9.77319	5	0.094	9.867	9.78329	5	0.100	9.883	37
24	9.76289	7	0.089	9.852	9.77336	7	0.094	9.868	9.78346	7	0.100	9.883	36
25	9.76307	9	0.089	9.852	9.77353	9	0.094	9.868	9.78362	9	0.100	9.884	35
26	9.76324	11	0.089	9.852	9.77370	10	0.094	9.868	9.78379	10	0.100	9.884	34
27	9.76342	13	0.089	9.852	9.77387	12	0.095	9.868	9.78395	12	0.100	9.884	33
28	9.76360	14	0.089	9.853	9.77405	14	0.095	9.869	9.78412	14	0.100	9.884	32
29	9.76378	16	0.089	9.853	9.77422	15	0.095	9.869	9.78428	15	0.100	9.885	31
30	9.76395	18	0.089	9.853	9.77439	17	0.095	9.869	9.78445	16	0.101	9.885	30
31	9.76413	2	0.089	9.854	9.77456	2	0.095	9.869	9.78461	2	0.101	9.885	29
32	9.76431	4	0.089	9.854	9.77473	3	0.095	9.870	9.78478	3	0.101	9.886	28
33	9.76448	5	0.090	9.854	9.77490	5	0.095	9.870	9.78494	5	0.101	9.886	27
34	9.76466	7	0.090	9.854	9.77507	7	0.095	9.870	9.78510	6	0.101	9.886	26
35	9.76484	9	0.090	9.855	9.77524	9	0.095	9.871	9.78527	8	0.101	9.886	25
36	9.76501	11	0.090	9.855	9.77541	10	0.095	9.871	9.78543	10	0.101	9.887	24
37	9.76519	13	0.090	9.855	9.77558	12	0.095	9.871	9.78560	11	0.101	9.887	23
38	9.76537	14	0.090	9.855	9.77575	14	0.096	9.871	9.78576	13	0.101	9.887	22
39	9.76554	16	0.090	9.856	9.77592	15	0.096	9.872	9.78592	14	0.101	9.887	21
40	9.76572	18	0.090	9.856	9.77609	17	0.096	9.872	9.78609	16	0.102	9.888	20
41	9.76590	2	0.090	9.856	9.77626	2	0.096	9.872	9.78625	2	0.102	9.888	19
42	9.76607	4	0.090	9.856	9.77643	3	0.096	9.872	9.78642	3	0.102	9.888	18
43	9.76625	5	0.090	9.857	9.77660	5	0.096	9.873	9.78658	5	0.102	9.888	17
44	9.76642	7	0.091	9.857	9.77677	7	0.096	9.873	9.78674	6	0.102	9.889	16
45	9.76660	9	0.091	9.857	9.77694	9	0.096	9.873	9.78691	8	0.102	9.889	15
46	9.76677	11	0.091	9.858	9.77711	10	0.096	9.873	9.78707	10	0.102	9.889	14
47	9.76695	13	0.091	9.858	9.77728	12	0.096	9.874	9.78723	11	0.102	9.889	13
48	9.76712	14	0.091	9.858	9.77744	14	0.097	9.874	9.78739	13	0.102	9.890	12
49	9.76730	16	0.091	9.858	9.77761	15	0.097	9.874	9.78756	14	0.102	9.890	11
50	9.76747	17	0.091	9.859	9.77778	17	0.097	9.874	9.78772	16	0.102	9.890	10
51	9.76765	2	0.091	9.859	9.77795	2	0.097	9.875	9.78788	2	0.103	9.890	9
52	9.76782	3	0.091	9.859	9.77812	3	0.097	9.875	9.78805	3	0.103	9.891	8
53	9.76800	5	0.091	9.859	9.77829	5	0.097	9.875	9.78821	5	0.103	9.891	7
54	9.76817	7	0.091	9.860	9.77846	7	0.097	9.876	9.78837	6	0.103	9.891	6
55	9.76835	9	0.092	9.860	9.77862	9	0.097	9.876	9.78853	8	0.103	9.892	5
56	9.76852	10	0.092	9.860	9.77879	10	0.097	9.876	9.78869	10	0.103	9.892	4
57	9.76870	12	0.092	9.860	9.77896	12	0.097	9.876	9.78886	11	0.103	9.892	3
58	9.76887	14	0.092	9.861	9.77913	14	0.097	9.877	9.78902	13	0.103	9.892	2
59	9.76904	15	0.092	9.861	9.77930	15	0.098	9.877	9.78918	14	0.103	9.893	1
60	9.76922		0.092	9.861	9.77946		0.098	9.877	9.78934		0.103	9.893	0

	A_3	Z_3	Z_4	A_3	Z_3	Z_4	A_3	Z_3	Z_4	′
	144° 324° 144°			143° 323° 143°			142° 322° 142°			

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　l 土 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	38° 218° 38°				39° 219° 39°				40° 220° 40°				′
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.78934	16	0.103	9.893	9.79887	16	0.109	9.908	9.80807	15	0.116	9.924	60
1	9.78950	2	0.104	9.893	9.79903	2	0.110	9.909	9.80822	2	0.116	9.924	59
2	9.78967	3	0.104	9.893	9.79918	3	0.110	9.909	9.80837	3	0.116	9.924	58
3	9.78983	5	0.104	9.894	9.79934	5	0.110	9.909	9.80852	5	0.116	9.925	57
4	9.78999	6	0.104	9.894	9.79950	6	0.110	9.909	9.80867	6	0.116	9.925	56
5	9.79015	8	0.104	9.894	9.79965	8	0.110	9.910	9.80882	8	0.116	9.925	55
6	9.79031	10	0.104	9.894	9.79981	10	0.110	9.910	9.80897	9	0.116	9.925	54
7	9.79047	11	0.104	9.895	9.79996	11	0.110	9.910	9.80912	11	0.116	9.926	53
8	9.79063	13	0.104	9.895	9.80012	13	0.110	9.910	9.80927	12	0.117	9.926	52
9	9.79079	14	0.104	9.895	9.80027	14	0.110	9.911	9.80942	14	0.117	9.926	51
10	9.79095	16	0.104	9.895	9.80043	15	0.111	9.911	9.80957	15	0.117	9.926	50
11	9.79111	2	0.105	9.896	9.80058	2	0.111	9.911	9.80972	2	0.117	9.927	49
12	9.79128	3	0.105	9.896	9.80074	3	0.111	9.911	9.80987	3	0.117	9.927	48
13	9.79144	5	0.105	9.896	9.80089	5	0.111	9.912	9.81002	5	0.117	9.927	47
14	9.79160	6	0.105	9.896	9.80105	6	0.111	9.912	9.81017	6	0.117	9.927	46
15	9.79176	8	0.105	9.897	9.80120	8	0.111	9.912	9.81032	8	0.117	9.928	45
16	9.79192	10	0.105	9.897	9.80136	9	0.111	9.912	9.81047	9	0.117	9.928	44
17	9.79208	11	0.105	9.897	9.80151	11	0.111	9.913	9.81061	11	0.118	9.928	43
18	9.79224	13	0.105	9.897	9.80166	12	0.111	9.913	9.81076	12	0.118	9.928	42
19	9.79240	14	0.105	9.898	9.80182	14	0.111	9.913	9.81091	14	0.118	9.929	41
20	9.79256	16	0.105	9.898	9.80197	15	0.112	9.914	9.81106	15	0.118	9.929	40
21	9.79272	2	0.106	9.898	9.80213	2	0.112	9.914	9.81121	2	0.118	9.929	39
22	9.79288	3	0.106	9.899	9.80228	3	0.112	9.914	9.81136	3	0.118	9.929	38
23	9.79304	5	0.106	9.899	9.80244	5	0.112	9.914	9.81151	5	0.118	9.930	37
24	9.79319	6	0.106	9.899	9.80259	6	0.112	9.915	9.81166	6	0.118	9.930	36
25	9.79335	8	0.106	9.899	9.80274	8	0.112	9.915	9.81180	8	0.118	9.930	35
26	9.79351	10	0.106	9.900	9.80290	9	0.112	9.915	9.81195	9	0.119	9.930	34
27	9.79367	11	0.106	9.900	9.80305	11	0.112	9.915	9.81210	11	0.119	9.931	33
28	9.79383	13	0.106	9.900	9.80320	12	0.112	9.916	9.81225	12	0.119	9.931	32
29	9.79399	14	0.106	9.900	9.80336	14	0.112	9.916	9.81240	14	0.119	9.931	31
30	9.79415	16	0.106	9.901	9.80351	15	0.113	9.916	9.81254	15	0.119	9.931	30
31	9.79431	2	0.107	9.901	9.80366	2	0.113	9.916	9.81269	2	0.119	9.932	29
32	9.79447	3	0.107	9.901	9.80382	3	0.113	9.917	9.81284	3	0.119	9.932	28
33	9.79463	5	0.107	9.901	9.80397	5	0.113	9.917	9.81299	5	0.119	9.932	27
34	9.79478	6	0.107	9.902	9.80412	6	0.113	9.917	9.81314	6	0.119	9.933	26
35	9.79494	8	0.107	9.902	9.80428	8	0.113	9.917	9.81328	8	0.119	9.933	25
36	9.79510	10	0.107	9.902	9.80443	9	0.113	9.918	9.81343	9	0.120	9.933	24
37	9.79526	11	0.107	9.902	9.80458	11	0.113	9.918	9.81358	11	0.120	9.933	23
38	9.79542	13	0.107	9.903	9.80473	12	0.113	9.918	9.81372	12	0.120	9.934	22
39	9.79558	14	0.107	9.903	9.80489	14	0.114	9.918	9.81387	14	0.120	9.934	21
40	9.79573	16	0.107	9.903	9.80504	15	0.114	9.919	9.81402	15	0.120	9.934	20
41	9.79589	2	0.108	9.903	9.80519	2	0.114	9.919	9.81417	2	0.120	9.934	19
42	9.79605	3	0.108	9.904	9.80534	3	0.114	9.919	9.81431	3	0.120	9.935	18
43	9.79621	5	0.108	9.904	9.80550	5	0.114	9.919	9.81446	5	0.120	9.935	17
44	9.79636	6	0.108	9.904	9.80565	6	0.114	9.920	9.81461	6	0.120	9.935	16
45	9.79652	8	0.108	9.904	9.80580	8	0.114	9.920	9.81475	8	0.121	9.935	15
46	9.79668	10	0.108	9.905	9.80595	9	0.114	9.920	9.81490	9	0.121	9.936	14
47	9.79684	11	0.108	9.905	9.80610	11	0.114	9.920	9.81505	11	0.121	9.936	13
48	9.79699	13	0.108	9.905	9.80625	12	0.114	9.921	9.81519	12	0.121	9.936	12
49	9.79715	14	0.108	9.906	9.80641	14	0.115	9.921	9.81534	14	0.121	9.936	11
50	9.79731	16	0.108	9.906	9.80656	15	0.115	9.921	9.81549	15	0.121	9.937	10
51	9.79746	2	0.109	9.906	9.80671	2	0.115	9.922	9.81563	2	0.121	9.937	9
52	9.79762	3	0.109	9.906	9.80686	3	0.115	9.922	9.81578	3	0.121	9.937	8
53	9.79778	5	0.109	9.907	9.80701	5	0.115	9.922	9.81592	5	0.121	9.937	7
54	9.79793	6	0.109	9.907	9.80716	6	0.115	9.922	9.81607	6	0.122	9.938	6
55	9.79809	8	0.109	9.907	9.80731	8	0.115	9.923	9.81622	8	0.122	9.938	5
56	9.79825	10	0.109	9.907	9.80746	9	0.115	9.923	9.81636	9	0.122	9.938	4
57	9.79840	11	0.109	9.908	9.80762	11	0.115	9.923	9.81651	11	0.122	9.938	3
58	9.79856	13	0.109	9.908	9.80777	12	0.116	9.923	9.81665	12	0.122	9.939	2
59	9.79872	14	0.109	9.908	9.80792	14	0.116	9.924	9.81680	14	0.122	9.939	1
60	9.79887		0.109	9.908	9.80807		0.116	9.924	9.81694		0.122	9.939	0

A_3	Z_3	Z_4	A_3	Z_3	Z_4	A_3	Z_3	Z_4	′
141° 321° 141°			140° 320° 140°			139° 319° 139°			

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 土 $K<90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　l 土 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	41° 221° 41°				42° 222° 42°				43° 223° 43°				′
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.81694	14	0.122	9.939	9.82551	14	0.129	9.954	9.83378	14	0.136	9.970	60
1	9.81709	1	0.122	9.939	9.82565	1	0.129	9.955	9.83392	1	0.136	9.970	59
2	9.81723	3	0.122	9.940	9.82579	3	0.129	9.955	9.83405	3	0.136	9.970	58
3	9.81738	4	0.123	9.940	9.82593	4	0.129	9.955	9.83419	4	0.136	9.970	57
4	9.81752	6	0.123	9.940	9.82607	6	0.129	9.955	9.83432	6	0.136	9.971	56
5	9.81767	7	0.123	9.940	9.82621	7	0.129	9.956	9.83446	7	0.136	9.971	55
6	9.81781	8	0.123	9.941	9.82635	8	0.130	9.956	9.83459	8	0.137	9.971	54
7	9.81796	10	0.123	9.941	9.82649	10	0.130	9.956	9.83473	10	0.137	9.971	53
8	9.81810	11	0.123	9.941	9.82663	11	0.130	9.956	9.83486	11	0.137	9.972	52
9	9.81825	13	0.123	9.941	9.82677	13	0.130	9.957	9.83500	13	0.137	9.972	51
10	9.81839	14	0.123	9.942	9.82691	14	0.130	9.957	9.83513	13	0.137	9.972	50
11	9.81854	1	0.123	9.942	9.82705	1	0.130	9.957	9.83527	1	0.137	9.972	49
12	9.81868	3	0.124	9.942	9.82719	3	0.130	9.957	9.83540	3	0.137	9.973	48
13	9.81882	4	0.124	9.942	9.82733	4	0.130	9.958	9.83554	4	0.137	9.973	47
14	9.81897	6	0.124	9.943	9.82747	6	0.131	9.958	9.83567	5	0.138	9.973	46
15	9.81911	7	0.124	9.943	9.82761	7	0.131	9.958	9.83581	7	0.138	9.973	45
16	9.81926	8	0.124	9.943	9.82775	8	0.131	9.959	9.83594	8	0.138	9.974	44
17	9.81940	10	0.124	9.943	9.82788	10	0.131	9.959	9.83608	9	0.138	9.974	43
18	9.81955	11	0.124	9.944	9.82802	11	0.131	9.959	9.83621	10	0.138	9.974	42
19	9.81969	13	0.124	9.944	9.82816	13	0.131	9.959	9.83634	12	0.138	9.974	41
20	9.81983	14	0.124	9.944	9.82830	14	0.131	9.960	9.83648	13	0.138	9.975	40
21	9.81998	1	0.125	9.945	9.82844	1	0.131	9.960	9.83661	1	0.138	9.975	39
22	9.82012	3	0.125	9.945	9.82858	3	0.131	9.960	9.83674	3	0.138	9.975	38
23	9.82026	4	0.125	9.945	9.82872	4	0.132	9.960	9.83688	4	0.139	9.975	37
24	9.82041	6	0.125	9.945	9.82885	6	0.132	9.961	9.83701	5	0.139	9.976	36
25	9.82055	7	0.125	9.946	9.82899	7	0.132	9.961	9.83715	7	0.139	9.976	35
26	9.82069	8	0.125	9.946	9.82913	8	0.132	9.961	9.83728	8	0.139	9.976	34
27	9.82084	10	0.125	9.946	9.82927	10	0.132	9.961	9.83741	9	0.139	9.976	33
28	9.82098	11	0.125	9.946	9.82941	11	0.132	9.962	9.83755	10	0.139	9.977	32
29	9.82112	13	0.125	9.947	9.82955	13	0.132	9.962	9.83768	12	0.139	9.977	31
30	9.82126	14	0.126	9.947	9.82968	14	0.132	9.962	9.83781	13	0.139	9.977	30
31	9.82141	1	0.126	9.947	9.82982	1	0.132	9.962	9.83795	1	0.140	9.978	29
32	9.82155	3	0.126	9.947	9.82996	3	0.133	9.963	9.83808	3	0.140	9.978	28
33	9.82169	4	0.126	9.948	9.83010	4	0.133	9.963	9.83821	4	0.140	9.978	27
34	9.82184	6	0.126	9.948	9.83023	6	0.133	9.963	9.83834	5	0.140	9.978	26
35	9.82198	7	0.126	9.948	9.83037	7	0.133	9.963	9.83848	7	0.140	9.979	25
36	9.82212	8	0.126	9.948	9.83051	8	0.133	9.964	9.83861	8	0.140	9.979	24
37	9.82226	10	0.126	9.949	9.83065	10	0.133	9.964	9.83874	9	0.140	9.979	23
38	9.82240	11	0.126	9.949	9.83078	11	0.133	9.964	9.83887	10	0.140	9.979	22
39	9.82255	13	0.127	9.949	9.83092	13	0.133	9.964	9.83901	12	0.141	9.980	21
40	9.82269	14	0.127	9.949	9.83106	14	0.134	9.965	9.83914	13	0.141	9.980	20
41	9.82283	1	0.127	9.950	9.83120	1	0.134	9.965	9.83927	1	0.141	9.980	19
42	9.82297	3	0.127	9.950	9.83133	3	0.134	9.965	9.83940	3	0.141	9.980	18
43	9.82311	4	0.127	9.950	9.83147	4	0.134	9.965	9.83954	4	0.141	9.981	17
44	9.82326	6	0.127	9.950	9.83161	6	0.134	9.966	9.83967	5	0.141	9.981	16
45	9.82340	7	0.127	9.951	9.83174	7	0.134	9.966	9.83980	7	0.141	9.981	15
46	9.82354	8	0.127	9.951	9.83188	8	0.134	9.966	9.83993	8	0.141	9.981	14
47	9.82368	10	0.127	9.951	9.83202	10	0.134	9.966	9.84006	9	0.141	9.982	13
48	9.82382	11	0.128	9.951	9.83215	11	0.134	9.967	9.84020	10	0.142	9.982	12
49	9.82396	13	0.128	9.952	9.83229	13	0.135	9.967	9.84033	12	0.142	9.982	11
50	9.82410	14	0.128	9.952	9.83242	14	0.135	9.967	9.84046	13	0.142	9.982	10
51	9.82424	1	0.128	9.952	9.83256	1	0.135	9.967	9.84059	1	0.142	9.983	9
52	9.82439	3	0.128	9.952	9.83270	3	0.135	9.968	9.84072	3	0.142	9.983	8
53	9.82453	4	0.128	9.953	9.83283	4	0.135	9.968	9.84085	4	0.142	9.983	7
54	9.82467	6	0.128	9.953	9.83297	6	0.135	9.968	9.84098	5	0.142	9.983	6
55	9.82481	7	0.128	9.953	9.83310	7	0.135	9.968	9.84112	7	0.142	9.984	5
56	9.82495	8	0.128	9.953	9.83324	8	0.135	9.969	9.84125	8	0.143	9.984	4
57	9.82509	10	0.129	9.954	9.83338	10	0.136	9.969	9.84138	9	0.143	9.984	3
58	9.82523	11	0.129	9.954	9.83351	11	0.136	9.969	9.84151	10	0.143	9.984	2
59	9.82537	13	0.129	9.954	9.83365	13	0.136	9.969	9.84164	12	0.143	9.985	1
60	9.82551		0.129	9.954	9.83378		0.136	9.970	9.84177		0.143	9.985	0

A_3	Z_3	Z_4	A_3	Z_3	Z_4	A_3	Z_3	A_4	′
138° 318° 138°			137° 317° 137°			136° 316° 136°			

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 土 $K<90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　l 土 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	44° 224° 44°				45° 225° 45°				46° 226° 46°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.84177	13	0.143	9.985	9.84949	13	0.151	0.000	9.85693	12	0.158	0.015	60
1	9.84190	1	0.143	9.985	9.84961	1	0.151	0.000	9.85706	1	0.158	0.015	59
2	9.84203	3	0.143	9.985	9.84974	3	0.151	0.001	9.85718	2	0.158	0.016	58
3	9.84216	4	0.143	9.986	9.84986	4	0.151	0.001	9.85730	4	0.159	0.016	57
4	9.84229	5	0.144	9.986	9.84999	5	0.151	0.001	9.85742	5	0.159	0.016	56
5	9.84242	7	0.144	9.986	9.85012	7	0.151	0.001	9.85754	6	0.159	0.016	55
6	9.84255	8	0.144	9.986	9.85024	8	0.151	0.002	9.85766	7	0.159	0.017	54
7	9.84269	9	0.144	9.987	9.85037	9	0.151	0.002	9.85779	8	0.159	0.017	53
8	9.84282	10	0.144	9.987	9.85049	10	0.152	0.002	9.85791	10	0.159	0.017	52
9	9.84295	12	0.144	9.987	9.85062	12	0.152	0.002	9.85803	11	0.159	0.017	51
10	9.84308	13	0.144	9.987	9.85074	13	0.152	0.003	9.85815	12	0.160	0.018	50
11	9.84321	1	0.144	9.988	9.85087	1	0.152	0.003	9.85827	1	0.160	0.018	49
12	9.84334	3	0.145	9.988	9.85100	3	0.152	0.003	9.85839	2	0.160	0.018	48
13	9.84347	4	0.145	9.988	9.85112	4	0.152	0.003	9.85851	4	0.160	0.018	47
14	9.84360	5	0.145	9.988	9.85125	5	0.152	0.004	9.85864	5	0.160	0.019	46
15	9.84373	7	0.145	9.989	9.85137	7	0.152	0.004	9.85876	6	0.160	0.019	45
16	9.84385	8	0.145	9.989	9.85150	8	0.153	0.004	9.85888	7	0.160	0.019	44
17	9.84398	9	0.145	9.989	9.85162	9	0.153	0.004	9.85900	8	0.160	0.019	43
18	9.84411	10	0.145	9.989	9.85175	10	0.153	0.005	9.85912	10	0.161	0.020	42
19	9.84424	12	0.145	9.990	9.85187	12	0.153	0.005	9.85924	11	0.161	0.020	41
20	9.84437	13	0.146	9.990	9.85200	12	0.153	0.005	9.85936	12	0.161	0.020	40
21	9.84450	1	0.146	9.990	9.85212	1	0.153	0.005	9.85948	1	0.161	0.020	39
22	9.84463	3	0.146	9.990	9.85225	2	0.153	0.006	9.85960	2	0.161	0.021	38
23	9.84476	4	0.146	9.991	9.85237	4	0.153	0.006	9.85972	4	0.161	0.021	37
24	9.84489	5	0.146	9.991	9.85250	5	0.154	0.006	9.85984	5	0.161	0.021	36
25	9.84502	7	0.146	9.991	9.85262	6	0.154	0.006	9.85996	6	0.162	0.021	35
26	9.84515	8	0.146	9.991	9.85274	7	0.154	0.007	9.86008	7	0.162	0.022	34
27	9.84528	9	0.146	9.992	9.85287	8	0.154	0.007	9.86020	8	0.162	0.022	33
28	9.84540	10	0.147	9.992	9.85299	10	0.154	0.007	9.86032	10	0.162	0.022	32
29	9.84553	12	0.147	9.992	9.85312	11	0.154	0.007	9.86044	11	0.162	0.022	31
30	9.84566	13	0.147	9.992	9.85324	12	0.154	0.008	9.86056	12	0.162	0.023	30
31	9.84579	1	0.147	9.993	9.85337	1	0.154	0.008	9.86068	1	0.162	0.023	29
32	9.84592	3	0.147	9.993	9.85349	2	0.155	0.008	9.86080	2	0.162	0.023	28
33	9.84605	4	0.147	9.993	9.85361	4	0.155	0.008	9.86092	4	0.163	0.024	27
34	9.84618	5	0.147	9.993	9.85374	5	0.155	0.009	9.86104	5	0.163	0.024	26
35	9.84630	7	0.147	9.994	9.85386	6	0.155	0.009	9.86116	6	0.163	0.024	25
36	9.84643	8	0.148	9.994	9.85399	7	0.155	0.009	9.86128	7	0.163	0.024	24
37	9.84656	9	0.148	9.994	9.85411	8	0.155	0.009	9.86140	8	0.163	0.025	23
38	9.84669	10	0.148	9.994	9.85423	10	0.155	0.010	9.86152	10	0.163	0.025	22
39	9.84682	12	0.148	9.995	9.85436	11	0.155	0.010	9.86164	11	0.163	0.025	21
40	9.84694	13	0.148	9.995	9.85448	12	0.156	0.010	9.86176	12	0.164	0.025	20
41	9.84707	1	0.148	9.995	9.85460	1	0.156	0.010	9.86188	1	0.164	0.026	19
42	9.84720	3	0.148	9.995	9.85473	2	0.156	0.011	9.86200	2	0.164	0.026	18
43	9.84733	4	0.148	9.996	9.85485	4	0.156	0.011	9.86211	4	0.164	0.026	17
44	9.84745	5	0.149	9.996	9.85497	5	0.156	0.011	9.86223	5	0.164	0.026	16
45	9.84758	7	0.149	9.996	9.85510	6	0.156	0.011	9.86235	6	0.164	0.027	15
46	9.84771	8	0.149	9.996	9.85522	7	0.156	0.012	9.86247	7	0.164	0.027	14
47	9.84784	9	0.149	9.997	9.85534	8	0.157	0.012	9.86259	8	0.164	0.027	13
48	9.84796	10	0.149	9.997	9.85547	10	0.157	0.012	9.86271	10	0.165	0.027	12
49	9.84809	12	0.149	9.997	9.85559	11	0.157	0.012	9.86283	11	0.165	0.028	11
50	9.84822	13	0.149	9.997	9.85571	12	0.157	0.013	9.86295	12	0.165	0.028	10
51	9.84835	1	0.149	9.998	9.85583	1	0.157	0.013	9.86306	1	0.165	0.028	9
52	9.84847	3	0.150	9.998	9.85596	2	0.157	0.013	9.86318	2	0.165	0.028	8
53	9.84860	4	0.150	9.998	9.85608	4	0.157	0.013	9.86330	4	0.165	0.029	7
54	9.84873	5	0.150	9.998	9.85620	5	0.157	0.014	9.86342	5	0.165	0.029	6
55	9.84885	7	0.150	9.999	9.85632	6	0.158	0.014	9.86354	6	0.166	0.029	5
56	9.84898	8	0.150	9.999	9.85645	7	0.158	0.014	9.86366	7	0.166	0.029	4
57	9.84911	9	0.150	9.999	9.85657	8	0.158	0.014	9.86377	8	0.166	0.030	3
58	9.84923	10	0.150	9.999	9.85669	10	0.158	0.015	9.86389	10	0.166	0.030	2
59	9.84936	12	0.150	0.000	9.85681	11	0.158	0.015	9.86401	11	0.166	0.030	1
60	9.84949		0.151	0.000	9.85693		0.158	0.015	9.86413		0.166	0.030	0

	A_3	Z_3	Z_4		A_3	Z_3	Z_4		A_3	Z_3	Z_4	
	135° 315° 135°				134° 314° 134°				133° 313° 133°			′

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 土 $K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　l 土 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	47° 227° 47°				48° 228° 48°				49° 229° 49°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.86413	12	0.166	0.030	9.87107	11	0.174	0.046	9.87778	11	0.183	0.061	60
1	9.86425	1	0.166	0.031	9.87119	1	0.175	0.046	9.87789	1	0.183	0.061	59
2	9.86436	2	0.166	0.031	9.87130	2	0.175	0.046	9.87800	2	0.183	0.061	58
3	9.86448	4	0.167	0.031	9.87141	3	0.175	0.046	9.87811	3	0.183	0.062	57
4	9.86460	5	0.167	0.031	9.87153	4	0.175	0.047	9.87822	4	0.184	0.062	56
5	9.86472	6	0.167	0.032	9.87164	6	0.175	0.047	9.87833	6	0.184	0.062	55
6	9.86483	7	0.167	0.032	9.87175	7	0.175	0.047	9.87844	7	0.184	0.062	54
7	9.86495	8	0.167	0.032	9.87187	8	0.175	0.047	9.87855	8	0.184	0.063	53
8	9.86507	10	0.167	0.032	9.87198	9	0.176	0.048	9.87866	9	0.184	0.063	52
9	9.86518	11	0.167	0.033	9.87209	10	0.176	0.048	9.87877	10	0.184	0.063	51
10	9.86530	12	0.168	0.033	9.87221	11	0.176	0.048	9.87887	11	0.185	0.063	50
11	9.86542	1	0.168	0.033	9.87232	1	0.176	0.048	9.87898	1	0.185	0.064	49
12	9.86554	2	0.168	0.033	9.87243	2	0.176	0.049	9.87909	2	0.185	0.064	48
13	9.86565	4	0.168	0.034	9.87255	3	0.176	0.049	9.87920	3	0.185	0.064	47
14	9.86577	5	0.168	0.034	9.87266	4	0.176	0.049	9.87931	4	0.185	0.064	46
15	9.86589	6	0.168	0.034	9.87277	6	0.177	0.049	9.87942	6	0.185	0.065	45
16	9.86600	7	0.168	0.034	9.87288	7	0.177	0.050	9.87953	7	0.185	0.065	44
17	9.86612	8	0.169	0.035	9.87300	8	0.177	0.050	9.87964	8	0.186	0.065	43
18	9.86624	10	0.169	0.035	9.87311	9	0.177	0.050	9.87975	9	0.186	0.065	42
19	9.86635	11	0.169	0.035	9.87322	10	0.177	0.050	9.87985	10	0.186	0.066	41
20	9.86647	12	0.169	0.035	9.87334	11	0.177	0.051	9.87996	11	0.186	0.066	40
21	9.86659	1	0.169	0.036	9.87345	1	0.177	0.051	9.88007	1	0.186	0.066	39
22	9.86670	2	0.169	0.036	9.87356	2	0.178	0.051	9.88018	2	0.186	0.066	38
23	9.86682	4	0.169	0.036	9.87367	3	0.178	0.051	9.88029	3	0.186	0.067	37
24	9.86694	5	0.169	0.036	9.87378	4	0.178	0.052	9.88040	4	0.187	0.067	36
25	9.86705	6	0.170	0.037	9.87390	6	0.178	0.052	9.88051	6	0.187	0.067	35
26	9.86717	7	0.170	0.037	9.87401	7	0.178	0.052	9.88061	7	0.187	0.067	34
27	9.86728	8	0.170	0.037	9.87412	8	0.178	0.052	9.88072	8	0.187	0.068	33
28	9.86740	10	0.170	0.037	9.87423	9	0.178	0.053	9.88083	9	0.187	0.068	32
29	9.86752	11	0.170	0.038	9.87434	10	0.179	0.053	9.88094	10	0.187	0.068	31
30	9.86763	12	0.170	0.038	9.87446	11	0.179	0.053	9.88105	11	0.187	0.069	30
31	9.86775	1	0.170	0.038	9.87457	1	0.179	0.053	9.88115	1	0.188	0.069	29
32	9.86786	2	0.171	0.038	9.87468	2	0.179	0.054	9.88126	2	0.188	0.069	28
33	9.86798	4	0.171	0.039	9.87479	3	0.179	0.054	9.88137	3	0.188	0.069	27
34	9.86809	5	0.171	0.039	9.87490	4	0.179	0.054	9.88148	4	0.188	0.070	26
35	9.86821	6	0.171	0.039	9.87501	6	0.179	0.054	9.88158	6	0.188	0.070	25
36	9.86832	7	0.171	0.039	9.87513	7	0.180	0.055	9.88169	7	0.188	0.070	24
37	9.86844	8	0.171	0.040	9.87524	8	0.180	0.055	9.88180	8	0.188	0.070	23
38	9.86855	10	0.171	0.040	9.87535	9	0.180	0.055	9.88191	9	0.189	0.071	22
39	9.86867	11	0.172	0.040	9.87546	10	0.180	0.055	9.88201	10	0.189	0.071	21
40	9.86879	11	0.172	0.040	9.87557	11	0.180	0.056	9.88212	11	0.189	0.071	20
41	9.86890	1	0.172	0.041	9.87568	1	0.180	0.056	9.88223	1	0.189	0.071	19
42	9.86902	2	0.172	0.041	9.87579	2	0.180	0.056	9.88234	2	0.189	0.072	18
43	9.86913	3	0.172	0.041	9.87590	3	0.181	0.057	9.88244	3	0.189	0.072	17
44	9.86924	4	0.172	0.041	9.87601	4	0.181	0.057	9.88255	4	0.190	0.072	16
45	9.86936	6	0.172	0.042	9.87613	6	0.181	0.057	9.88266	6	0.190	0.072	15
46	9.86947	7	0.173	0.042	9.87624	7	0.181	0.057	9.88276	7	0.190	0.073	14
47	9.86959	8	0.173	0.042	9.87635	8	0.181	0.058	9.88287	8	0.190	0.073	13
48	9.86970	9	0.173	0.043	9.87646	9	0.181	0.058	9.88298	9	0.190	0.073	12
49	9.86982	10	0.173	0.043	9.87657	10	0.181	0.058	9.88308	10	0.190	0.073	11
50	9.86993	11	0.173	0.043	9.87668	11	0.182	0.058	9.88319	11	0.190	0.074	10
51	9.87005	1	0.173	0.043	9.87679	1	0.182	0.059	9.88330	1	0.191	0.074	9
52	9.87016	2	0.173	0.044	9.87690	2	0.182	0.059	9.88340	2	0.191	0.074	8
53	9.87028	3	0.174	0.044	9.87701	3	0.182	0.059	9.88351	3	0.191	0.074	7
54	9.87039	4	0.174	0.044	9.87712	4	0.182	0.059	9.88362	4	0.191	0.075	6
55	9.87050	6	0.174	0.044	9.87723	6	0.182	0.060	9.88372	6	0.191	0.075	5
56	9.87062	7	0.174	0.045	9.87734	7	0.182	0.060	9.88383	7	0.191	0.075	4
57	9.87073	8	0.174	0.045	9.87745	8	0.183	0.060	9.88394	8	0.191	0.075	3
58	9.87085	9	0.174	0.045	9.87756	9	0.183	0.060	9.88404	9	0.192	0.076	2
59	9.87096	10	0.174	0.045	9.87767	10	0.183	0.061	9.88415	10	0.192	0.076	1
60	9.87107		0.174	0.046	9.87778		0.183	0.061	9.88425		0.192	0.076	0

	A_3	Z_3	Z_4		A_3	Z_3	Z_4		A_3	Z_3	Z_4	
	132° 312° 132°				131° 311° 131°				130° 310° 130°			′

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 土 $K < 90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 l 士 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	50° 230° 50°				51° 231° 51°				52° 232° 52°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.88425	11	0.192	0.076	9.89050	10	0.201	0.092	9.89653	10	0.211	0.107	60
1	9.88436	1	0.192	0.076	9.89060	1	0.201	0.092	9.89663	1	0.211	0.107	59
2	9.88447	2	0.192	0.077	9.89071	2	0.201	0.092	9.89673	2	0.211	0.108	58
3	9.88457	3	0.192	0.077	9.89081	3	0.202	0.092	9.89683	3	0.211	0.108	57
4	9.88468	4	0.193	0.077	9.89091	4	0.202	0.093	9.89693	4	0.211	0.108	56
5	9.88478	6	0.193	0.077	9.89101	5	0.202	0.093	9.89702	5	0.211	0.108	55
6	9.88489	7	0.193	0.078	9.89112	6	0.202	0.093	9.89712	6	0.212	0.109	54
7	9.88499	8	0.193	0.078	9.89122	7	0.202	0.093	9.89722	7	0.212	0.109	53
8	9.88510	9	0.193	0.078	9.89132	8	0.202	0.094	9.89732	8	0.212	0.109	52
9	9.88521	10	0.193	0.078	9.89142	9	0.203	0.094	9.89742	9	0.212	0.110	51
10	9.88531	11	0.193	0.079	9.89152	10	0.203	0.094	9.89752	10	0.212	0.110	50
11	9.88542	1	0.194	0.079	9.89162	1	0.203	0.094	9.89761	1	0.212	0.110	49
12	9.88552	2	0.194	0.079	9.89173	2	0.203	0.095	9.89771	2	0.213	0.110	48
13	9.88563	3	0.194	0.080	9.89183	3	0.203	0.095	9.89781	3	0.213	0.111	47
14	9.88573	4	0.194	0.080	9.89193	4	0.203	0.095	9.89791	4	0.213	0.111	46
15	9.88584	6	0.194	0.080	9.89203	5	0.203	0.096	9.89801	5	0.213	0.111	45
16	9.88594	7	0.194	0.080	9.89213	6	0.204	0.096	9.89810	6	0.213	0.111	44
17	9.88605	8	0.195	0.081	9.89223	7	0.204	0.096	9.89820	7	0.213	0.112	43
18	9.88615	9	0.195	0.081	9.89233	8	0.204	0.096	9.89830	8	0.214	0.112	42
19	9.88626	10	0.195	0.081	9.89244	9	0.204	0.097	9.89840	9	0.214	0.112	41
20	9.88636	10	0.195	0.081	9.89254	10	0.204	0.097	9.89849	10	0.214	0.112	40
21	9.88647	1	0.195	0.082	9.89264	1	0.204	0.097	9.89859	1	0.214	0.113	39
22	9.88657	2	0.195	0.082	9.89274	2	0.205	0.097	9.89869	2	0.214	0.113	38
23	9.88668	3	0.195	0.082	9.89284	3	0.205	0.098	9.89879	3	0.214	0.113	37
24	9.88678	4	0.196	0.082	9.89294	4	0.205	0.098	9.89888	4	0.215	0.113	36
25	9.88688	5	0.196	0.083	9.89304	5	0.205	0.098	9.89898	5	0.215	0.114	35
26	9.88699	6	0.196	0.083	9.89314	6	0.205	0.098	9.89908	6	0.215	0.114	34
27	9.88709	7	0.196	0.083	9.89324	7	0.205	0.099	9.89918	7	0.215	0.114	33
28	9.88720	8	0.196	0.083	9.89334	8	0.206	0.099	9.89927	8	0.215	0.114	32
29	9.88730	9	0.196	0.084	9.89344	9	0.206	0.099	9.89937	9	0.215	0.115	31
30	9.88741	10	0.196	0.084	9.89354	10	0.206	0.099	9.89947	10	0.216	0.115	30
31	9.88751	1	0.197	0.084	9.89364	1	0.206	0.100	9.89956	1	0.216	0.115	29
32	9.88761	2	0.197	0.084	9.89375	2	0.206	0.100	9.89966	2	0.216	0.116	28
33	9.88772	3	0.197	0.085	9.89385	3	0.206	0.100	9.89976	3	0.216	0.116	27
34	9.88782	4	0.197	0.085	9.89395	4	0.206	0.100	9.89985	4	0.216	0.116	26
35	9.88793	5	0.197	0.085	9.89405	5	0.207	0.101	9.89995	5	0.216	0.116	25
36	9.88803	6	0.197	0.085	9.89415	6	0.207	0.101	9.90005	6	0.217	0.117	24
37	9.88813	7	0.198	0.086	9.89425	7	0.207	0.101	9.90014	7	0.217	0.117	23
38	9.88824	8	0.198	0.086	9.89435	8	0.207	0.101	9.90024	8	0.217	0.117	22
39	9.88834	9	0.198	0.086	9.89445	9	0.207	0.102	9.90034	9	0.217	0.117	21
40	9.88844	10	0.198	0.086	9.89455	10	0.207	0.102	9.90043	10	0.217	0.118	20
41	9.88855	1	0.198	0.087	9.89465	1	0.208	0.102	9.90053	1	0.217	0.118	19
42	9.88865	2	0.198	0.087	9.89475	2	0.208	0.103	9.90063	2	0.218	0.118	18
43	9.88875	3	0.198	0.087	9.89485	3	0.208	0.103	9.90072	3	0.218	0.118	17
44	9.88886	4	0.199	0.088	9.89495	4	0.208	0.103	9.90082	4	0.218	0.119	16
45	9.88896	5	0.199	0.088	9.89504	5	0.208	0.103	9.90091	5	0.218	0.119	15
46	9.88906	6	0.199	0.088	9.89514	6	0.208	0.104	9.90101	6	0.218	0.119	14
47	9.88917	7	0.199	0.088	9.89524	7	0.209	0.104	9.90111	7	0.218	0.119	13
48	9.88927	8	0.199	0.089	9.89534	8	0.209	0.104	9.90120	8	0.219	0.120	12
49	9.88937	9	0.199	0.089	9.89544	9	0.209	0.104	9.90130	9	0.219	0.120	11
50	9.88948	10	0.200	0.089	9.89554	10	0.209	0.105	9.90139	10	0.219	0.120	10
51	9.88958	1	0.200	0.089	9.89564	1	0.209	0.105	9.90149	1	0.219	0.121	9
52	9.88968	2	0.200	0.090	9.89574	2	0.209	0.105	9.90159	2	0.219	0.121	8
53	9.88978	3	0.200	0.090	9.89584	3	0.210	0.105	9.90168	3	0.219	0.121	7
54	9.88989	4	0.200	0.090	9.89594	4	0.210	0.106	9.90178	4	0.220	0.121	6
55	9.88999	5	0.200	0.090	9.89604	5	0.210	0.106	9.90187	5	0.220	0.122	5
56	9.89009	6	0.201	0.091	9.89614	6	0.210	0.106	9.90197	6	0.220	0.122	4
57	9.89020	7	0.201	0.091	9.89624	7	0.210	0.106	9.90206	7	0.220	0.122	3
58	9.89030	8	0.201	0.091	9.89633	8	0.210	0.107	9.90216	8	0.220	0.122	2
59	9.89040	9	0.201	0.091	9.89643	9	0.210	0.107	9.90225	9	0.220	0.123	1
60	9.89050		0.201	0.092	9.89653		0.211	0.107	9.90235		0.221	0.123	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	′
	129° 309° 129°				128° 308° 128°				127° 307° 127°				

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 士 $K < 90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 l 士 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	53° 233° 53°				54° 234° 54°				55° 235° 55°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.90235	9	0.221	0.123	9.90796	9	0.231	0.139	9.91336	9	0.241	0.155	60
1	9.90244	1	0.221	0.123	9.90805	1	0.231	0.139	9.91345	1	0.242	0.155	59
2	9.90254	2	0.221	0.123	9.90814	2	0.231	0.139	9.91354	2	0.242	0.155	58
3	9.90263	3	0.221	0.124	9.90823	3	0.231	0.140	9.91363	3	0.242	0.156	57
4	9.90273	4	0.221	0.124	9.90832	4	0.231	0.140	9.91372	4	0.242	0.156	56
5	9.90282	5	0.221	0.124	9.90842	5	0.232	0.140	9.91381	5	0.242	0.156	55
6	9.90292	5	0.222	0.124	9.90851	5	0.232	0.140	9.91389	5	0.242	0.156	54
7	9.90301	6	0.222	0.125	9.90860	6	0.232	0.141	9.91398	6	0.243	0.157	53
8	9.90311	7	0.222	0.125	9.90869	7	0.232	0.141	9.91407	7	0.243	0.157	52
9	9.90320	8	0.222	0.125	9.90878	8	0.232	0.141	9.91416	8	0.243	0.157	51
10	9.90330	9	0.222	0.126	9.90887	9	0.233	0.141	9.91425	9	0.243	0.157	50
11	9.90339	1	0.222	0.126	9.90896	1	0.233	0.142	9.91433	1	0.243	0.158	49
12	9.90349	2	0.223	0.126	9.90906	2	0.233	0.142	9.91442	2	0.244	0.158	48
13	9.90358	3	0.223	0.126	9.90915	3	0.233	0.142	9.91451	3	0.244	0.158	47
14	9.90368	4	0.223	0.127	9.90924	4	0.233	0.142	9.91460	4	0.244	0.159	46
15	9.90377	5	0.223	0.127	9.90933	5	0.233	0.143	9.91469	5	0.244	0.159	45
16	9.90386	5	0.223	0.127	9.90942	5	0.234	0.143	9.91477	5	0.244	0.159	44
17	9.90396	6	0.223	0.127	9.90951	6	0.234	0.143	9.91486	6	0.244	0.159	43
18	9.90405	7	0.224	0.128	9.90960	7	0.234	0.144	9.91495	7	0.245	0.160	42
19	9.90415	8	0.224	0.128	9.90969	8	0.234	0.144	9.91504	8	0.245	0.160	41
20	9.90424	9	0.224	0.128	9.90978	9	0.234	0.144	9.91512	9	0.245	0.160	40
21	9.90434	1	0.224	0.128	9.90987	1	0.234	0.144	9.91521	1	0.245	0.160	39
22	9.90443	2	0.224	0.129	9.90996	2	0.235	0.145	9.91530	2	0.245	0.161	38
23	9.90452	3	0.224	0.129	9.91005	3	0.235	0.145	9.91538	3	0.246	0.161	37
24	9.90462	4	0.225	0.129	9.91014	4	0.235	0.145	9.91547	4	0.246	0.161	36
25	9.90471	5	0.225	0.129	9.91023	5	0.235	0.145	9.91556	5	0.246	0.162	35
26	9.90480	5	0.225	0.130	9.91033	5	0.235	0.146	9.91565	5	0.246	0.162	34
27	9.90490	6	0.225	0.130	9.91042	6	0.236	0.146	9.91573	6	0.246	0.162	33
28	9.90499	7	0.225	0.130	9.91051	7	0.236	0.146	9.91582	7	0.247	0.162	32
29	9.90509	8	0.225	0.131	9.91060	8	0.236	0.146	9.91591	8	0.247	0.163	31
30	9.90518	9	0.226	0.131	9.91069	9	0.236	0.147	9.91599	9	0.247	0.163	30
31	9.90527	1	0.226	0.131	9.91078	1	0.236	0.147	9.91608	1	0.247	0.163	29
32	9.90537	2	0.226	0.131	9.91087	2	0.236	0.147	9.91617	2	0.247	0.163	28
33	9.90546	3	0.226	0.132	9.91096	3	0.237	0.148	9.91625	3	0.247	0.164	27
34	9.90555	4	0.226	0.132	9.91105	4	0.237	0.148	9.91634	4	0.248	0.164	26
35	9.90565	5	0.226	0.132	9.91114	5	0.237	0.148	9.91643	5	0.248	0.164	25
36	9.90574	5	0.227	0.132	9.91123	5	0.237	0.148	9.91651	5	0.248	0.164	24
37	9.90583	6	0.227	0.133	9.91132	6	0.237	0.149	9.91660	6	0.248	0.165	23
38	9.90592	7	0.227	0.133	9.91141	7	0.237	0.149	9.91669	7	0.248	0.165	22
39	9.90602	8	0.227	0.133	9.91149	8	0.238	0.149	9.91677	8	0.249	0.165	21
40	9.90611	9	0.227	0.133	9.91158	9	0.238	0.149	9.91686	9	0.249	0.166	20
41	9.90620	1	0.227	0.134	9.91167	1	0.238	0.150	9.91695	1	0.249	0.166	19
42	9.90630	2	0.228	0.134	9.91176	2	0.238	0.150	9.91703	2	0.249	0.166	18
43	9.90639	3	0.228	0.134	9.91185	3	0.238	0.150	9.91712	3	0.249	0.166	17
44	9.90648	4	0.228	0.134	9.91194	4	0.239	0.150	9.91720	4	0.249	0.167	16
45	9.90657	5	0.228	0.135	9.91203	5	0.239	0.151	9.91729	5	0.250	0.167	15
46	9.90667	5	0.228	0.135	9.91212	5	0.239	0.151	9.91738	5	0.250	0.167	14
47	9.90676	6	0.229	0.135	9.91221	6	0.239	0.151	9.91746	6	0.250	0.167	13
48	9.90685	7	0.229	0.136	9.91230	7	0.239	0.152	9.91755	7	0.250	0.168	12
49	9.90694	8	0.229	0.136	9.91239	8	0.239	0.152	9.91763	8	0.250	0.168	11
50	9.90704	9	0.229	0.136	9.91248	9	0.240	0.152	9.91772	9	0.251	0.168	10
51	9.90713	1	0.229	0.136	9.91257	1	0.240	0.152	9.91781	1	0.251	0.169	9
52	9.90722	2	0.229	0.137	9.91266	2	0.240	0.153	9.91789	2	0.251	0.169	8
53	9.90731	3	0.230	0.137	9.91274	3	0.240	0.153	9.91798	3	0.251	0.169	7
54	9.90741	4	0.230	0.137	9.91283	4	0.240	0.153	9.91806	4	0.251	0.169	6
55	9.90750	5	0.230	0.137	9.91292	5	0.241	0.153	9.91815	5	0.252	0.170	5
56	9.90759	5	0.230	0.138	9.91301	5	0.241	0.154	9.91823	5	0.252	0.170	4
57	9.90768	6	0.230	0.138	9.91310	6	0.241	0.154	9.91832	6	0.252	0.170	3
58	9.90777	7	0.230	0.138	9.91319	7	0.241	0.154	9.91840	7	0.252	0.170	2
59	9.90787	8	0.231	0.138	9.91328	8	0.241	0.155	9.91849	8	0.252	0.171	1
60	9.90796		0.231	0.139	9.91336		0.241	0.155	9.91857		0.252	0.171	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	′
	126° 306° 126°				125° 305° 125°				124° 304° 124°				

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 士 $K < 90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 $l \lessgtr K(a, Z)$ 表

$$A_1 + A_2 + A_3 = A_4 \rightarrow a$$
$$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$$

′	56° 236° 56°				57° 237° 57°				58° 238° 58°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.91857	8	0.252	0.171	9.92359	8	0.264	0.187	9.92842	8	0.276	0.204	60
1	9.91866	1	0.253	0.171	9.92367	1	0.264	0.188	9.92850	1	0.276	0.204	59
2	9.91874	2	0.253	0.172	9.92376	2	0.264	0.188	9.92858	2	0.276	0.205	58
3	9.91883	2	0.253	0.172	9.92384	2	0.264	0.188	9.92866	2	0.276	0.205	57
4	9.91891	3	0.253	0.172	9.92392	3	0.265	0.189	9.92874	3	0.277	0.205	56
5	9.91900	4	0.253	0.172	9.92400	4	0.265	0.189	9.92881	4	0.277	0.206	55
6	9.91908	5	0.254	0.173	9.92408	5	0.265	0.189	9.92889	5	0.277	0.206	54
7	9.91917	6	0.254	0.173	9.92416	6	0.265	0.189	9.92897	6	0.277	0.206	53
8	9.91925	6	0.254	0.173	9.92425	6	0.265	0.190	9.92905	6	0.277	0.206	52
9	9.91934	7	0.254	0.173	9.92433	7	0.266	0.190	9.92913	7	0.278	0.207	51
10	9.91942	8	0.254	0.174	9.92441	8	0.266	0.190	9.92921	8	0.278	0.207	50
11	9.91951	1	0.255	0.174	9.92449	1	0.266	0.191	9.92929	1	0.278	0.207	49
12	9.91959	2	0.255	0.174	9.92457	2	0.266	0.191	9.92936	2	0.278	0.208	48
13	9.91968	2	0.255	0.175	9.92465	2	0.266	0.191	9.92944	2	0.278	0.208	47
14	9.91976	3	0.255	0.175	9.92473	3	0.267	0.191	9.92952	3	0.279	0.208	46
15	9.91985	4	0.255	0.175	9.92482	4	0.267	0.192	9.92960	4	0.279	0.208	45
16	9.91993	5	0.255	0.175	9.92490	5	0.267	0.192	9.92968	5	0.279	0.209	44
17	9.92002	6	0.256	0.176	9.92498	6	0.267	0.192	9.92976	6	0.279	0.209	43
18	9.92010	6	0.256	0.176	9.92506	6	0.267	0.192	9.92983	6	0.279	0.209	42
19	9.92018	7	0.256	0.176	9.92514	7	0.268	0.193	9.92991	7	0.280	0.210	41
20	9.92027	8	0.256	0.176	9.92522	8	0.268	0.193	9.92999	8	0.280	0.210	40
21	9.92035	1	0.256	0.177	9.92530	1	0.268	0.193	9.93007	1	0.280	0.210	39
22	9.92044	2	0.257	0.177	9.92538	2	0.268	0.194	9.93014	2	0.280	0.210	38
23	9.92052	2	0.257	0.177	9.92546	2	0.268	0.194	9.93022	2	0.280	0.211	37
24	9.92060	3	0.257	0.178	9.92555	3	0.269	0.194	9.93030	3	0.281	0.211	36
25	9.92069	4	0.257	0.178	9.92563	4	0.269	0.194	9.93038	4	0.281	0.211	35
26	9.92077	5	0.257	0.178	9.92571	5	0.269	0.195	9.93046	5	0.281	0.212	34
27	9.92086	6	0.258	0.178	9.92579	6	0.269	0.195	9.93053	6	0.281	0.212	33
28	9.92094	6	0.258	0.179	9.92587	6	0.269	0.195	9.93061	6	0.282	0.212	32
29	9.92102	7	0.258	0.179	9.92595	7	0.270	0.196	9.93069	7	0.282	0.212	31
30	9.92111	8	0.258	0.179	9.92603	8	0.270	0.196	9.93077	8	0.282	0.213	30
31	9.92119	1	0.258	0.179	9.92611	1	0.270	0.196	9.93084	1	0.282	0.213	29
32	9.92127	2	0.258	0.180	9.92619	2	0.270	0.196	9.93092	2	0.282	0.213	28
33	9.92136	2	0.259	0.180	9.92627	2	0.270	0.197	9.93100	2	0.283	0.214	27
34	9.92144	3	0.259	0.180	9.92635	3	0.271	0.197	9.93108	3	0.283	0.214	26
35	9.92152	4	0.259	0.181	9.92643	4	0.271	0.197	9.93115	4	0.283	0.214	25
36	9.92161	5	0.259	0.181	9.92651	5	0.271	0.197	9.93123	5	0.283	0.214	24
37	9.92169	6	0.259	0.181	9.92659	6	0.271	0.198	9.93131	6	0.283	0.215	23
38	9.92177	6	0.260	0.181	9.92667	6	0.271	0.198	9.93138	6	0.284	0.215	22
39	9.92186	7	0.260	0.182	9.92675	7	0.272	0.198	9.93146	7	0.284	0.215	21
40	9.92194	8	0.260	0.182	9.92683	8	0.272	0.199	9.93154	8	0.284	0.216	20
41	9.92202	1	0.260	0.182	9.92691	1	0.272	0.199	9.93161	1	0.284	0.216	19
42	9.92211	2	0.260	0.183	9.92699	2	0.272	0.199	9.93169	2	0.284	0.216	18
43	9.92219	2	0.261	0.183	9.92707	2	0.272	0.199	9.93177	2	0.285	0.216	17
44	9.92227	3	0.261	0.183	9.92715	3	0.273	0.200	9.93184	3	0.285	0.217	16
45	9.92235	4	0.261	0.183	9.92723	4	0.273	0.200	9.93192	4	0.285	0.217	15
46	9.92244	5	0.261	0.184	9.92731	5	0.273	0.200	9.93200	5	0.285	0.217	14
47	9.92252	6	0.261	0.184	9.92739	6	0.273	0.201	9.93207	6	0.285	0.218	13
48	9.92260	6	0.262	0.184	9.92747	6	0.273	0.201	9.93215	6	0.286	0.218	12
49	9.92269	7	0.262	0.184	9.92755	7	0.274	0.201	9.93223	7	0.286	0.218	11
50	9.92277	8	0.262	0.185	9.92763	8	0.274	0.201	9.93230	8	0.286	0.218	10
51	9.92285	1	0.262	0.185	9.92771	1	0.274	0.202	9.93238	1	0.286	0.219	9
52	9.92293	2	0.262	0.185	9.92779	2	0.274	0.202	9.93246	2	0.286	0.219	8
53	9.92302	2	0.263	0.186	9.92787	2	0.274	0.202	9.93253	2	0.287	0.219	7
54	9.92310	3	0.263	0.186	9.92795	3	0.275	0.203	9.93261	3	0.287	0.220	6
55	9.92318	4	0.263	0.186	9.92803	4	0.275	0.203	9.93269	4	0.287	0.220	5
56	9.92326	5	0.263	0.186	9.92810	5	0.275	0.203	9.93276	5	0.287	0.220	4
57	9.92335	6	0.263	0.187	9.92818	6	0.275	0.203	9.93284	6	0.288	0.220	3
58	9.92343	6	0.264	0.187	9.92826	6	0.275	0.204	9.93291	6	0.288	0.221	2
59	9.92351	7	0.264	0.187	9.92834	7	0.276	0.204	9.93299	7	0.288	0.221	1
60	9.92359		0.264	0.187	9.92842		0.276	0.204	9.93307		0.288	0.221	0

	A_3	Z_3	Z_4		A_3	Z_3	Z_4		A_3	Z_3	Z_4	
	123° 303° 123°				122° 302° 122°				121° 301° 121°			

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \lessgtr K < 90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 $l \lessgtr K(a, Z)$ 表

$$A_1 + A_2 + A_3 = A_4 \rightarrow a$$
$$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$$

′	59° 239° 59°				60° 240° 60°				61° 241° 61°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.93307	8	0.288	0.221	9.93753	7	0.301	0.239	9.94182	7	0.314	0.256	60
1	9.93314	1	0.288	0.222	9.93760	1	0.301	0.239	9.94189	1	0.315	0.257	59
2	9.93322	2	0.289	0.222	9.93768	1	0.301	0.239	9.94196	1	0.315	0.257	58
3	9.93329	2	0.289	0.222	9.93775	2	0.302	0.239	9.94203	2	0.315	0.257	57
4	9.93337	3	0.289	0.222	9.93782	3	0.302	0.240	9.94210	3	0.315	0.257	56
5	9.93344	4	0.289	0.223	9.93789	4	0.302	0.240	9.94217	4	0.316	0.258	55
6	9.93352	5	0.289	0.223	9.93797	4	0.302	0.240	9.94224	4	0.316	0.258	54
7	9.93360	6	0.290	0.223	9.93804	5	0.303	0.241	9.94231	5	0.316	0.258	53
8	9.93367	6	0.290	0.224	9.93811	6	0.303	0.241	9.94238	6	0.316	0.259	52
9	9.93375	7	0.290	0.224	9.93819	6	0.303	0.241	9.94245	6	0.316	0.259	51
10	9.93382	8	0.290	0.224	9.93826	7	0.303	0.241	9.94252	7	0.317	0.259	50
11	9.93390	1	0.290	0.224	9.93833	1	0.303	0.242	9.94259	1	0.317	0.260	49
12	9.93397	2	0.291	0.225	9.93840	1	0.304	0.242	9.94266	1	0.317	0.260	48
13	9.93405	2	0.291	0.225	9.93847	2	0.304	0.242	9.94273	2	0.317	0.260	47
14	9.93412	3	0.291	0.225	9.93855	3	0.304	0.243	9.94279	3	0.318	0.260	46
15	9.93420	4	0.291	0.226	9.93862	4	0.304	0.243	9.94286	4	0.318	0.261	45
16	9.93427	5	0.292	0.226	9.93869	4	0.305	0.243	9.94293	4	0.318	0.261	44
17	9.93435	6	0.292	0.226	9.93876	5	0.305	0.244	9.94300	5	0.318	0.261	43
18	9.93442	6	0.292	0.226	9.93884	6	0.305	0.244	9.94307	6	0.319	0.262	42
19	9.93450	7	0.292	0.227	9.93891	6	0.305	0.244	9.94314	6	0.319	0.262	41
20	9.93457	7	0.292	0.227	9.93898	7	0.305	0.244	9.94321	7	0.319	0.262	40
21	9.93465	1	0.293	0.227	9.93905	1	0.306	0.245	9.94328	1	0.319	0.263	39
22	9.93472	1	0.293	0.228	9.93912	1	0.306	0.245	9.94335	1	0.319	0.263	38
23	9.93480	2	0.293	0.228	9.93920	2	0.306	0.245	9.94342	2	0.320	0.263	37
24	9.93487	3	0.293	0.228	9.93927	3	0.306	0.246	9.94349	3	0.320	0.263	36
25	9.93495	4	0.293	0.228	9.93934	4	0.307	0.246	9.94355	4	0.320	0.264	35
26	9.93502	4	0.294	0.229	9.93941	4	0.307	0.246	9.94362	4	0.320	0.264	34
27	9.93510	5	0.294	0.229	9.93948	5	0.307	0.246	9.94369	5	0.321	0.264	33
28	9.93517	6	0.294	0.229	9.93955	6	0.307	0.247	9.94376	6	0.321	0.265	32
29	9.93525	6	0.294	0.230	9.93963	6	0.307	0.247	9.94383	6	0.321	0.265	31
30	9.93532	7	0.295	0.230	9.93970	7	0.308	0.247	9.94390	7	0.321	0.265	30
31	9.93539	1	0.295	0.230	9.93977	1	0.308	0.248	9.94397	1	0.322	0.266	29
32	9.93547	1	0.295	0.230	9.93984	1	0.308	0.248	9.94404	1	0.322	0.266	28
33	9.93554	2	0.295	0.231	9.93991	2	0.308	0.248	9.94410	2	0.322	0.266	27
34	9.93562	3	0.295	0.231	9.93998	3	0.309	0.249	9.94417	3	0.322	0.266	26
35	9.93569	4	0.296	0.231	9.94005	4	0.309	0.249	9.94424	4	0.323	0.267	25
36	9.93577	4	0.296	0.232	9.94012	4	0.309	0.249	9.94431	4	0.323	0.267	24
37	9.93584	5	0.296	0.232	9.94020	5	0.309	0.249	9.94438	5	0.323	0.267	23
38	9.93591	6	0.296	0.232	9.94027	6	0.309	0.250	9.94445	6	0.323	0.268	22
39	9.93599	6	0.296	0.232	9.94034	6	0.310	0.250	9.94451	6	0.323	0.268	21
40	9.93606	7	0.297	0.233	9.94041	7	0.310	0.250	9.94458	7	0.324	0.268	20
41	9.93614	1	0.297	0.233	9.94048	1	0.310	0.251	9.94465	1	0.324	0.269	19
42	9.93621	1	0.297	0.233	9.94055	1	0.310	0.251	9.94472	1	0.324	0.269	18
43	9.93628	2	0.297	0.234	9.94062	2	0.311	0.251	9.94479	2	0.324	0.269	17
44	9.93636	3	0.298	0.234	9.94069	3	0.311	0.251	9.94485	3	0.325	0.269	16
45	9.93643	4	0.298	0.234	9.94076	4	0.311	0.252	9.94492	4	0.325	0.270	15
46	9.93650	4	0.298	0.234	9.94083	4	0.311	0.252	9.94499	4	0.325	0.270	14
47	9.93658	5	0.298	0.235	9.94090	5	0.311	0.252	9.94506	5	0.325	0.270	13
48	9.93665	6	0.298	0.235	9.94098	6	0.312	0.253	9.94513	6	0.326	0.271	12
49	9.93673	6	0.299	0.235	9.94105	6	0.312	0.253	9.94519	6	0.326	0.271	11
50	9.93680	7	0.299	0.236	9.94112	7	0.312	0.253	9.94526	7	0.326	0.271	10
51	9.93687	1	0.299	0.236	9.94119	1	0.312	0.254	9.94533	1	0.326	0.272	9
52	9.93695	1	0.299	0.236	9.94126	1	0.313	0.254	9.94540	1	0.326	0.272	8
53	9.93702	2	0.300	0.237	9.94133	2	0.313	0.254	9.94546	2	0.327	0.272	7
54	9.93709	3	0.300	0.237	9.94140	3	0.313	0.254	9.94553	3	0.327	0.272	6
55	9.93717	4	0.300	0.237	9.94147	4	0.313	0.255	9.94560	4	0.327	0.273	5
56	9.93724	4	0.300	0.237	9.94154	4	0.314	0.255	9.94567	4	0.327	0.273	4
57	9.93731	5	0.300	0.238	9.94161	5	0.314	0.255	9.94573	5	0.328	0.273	3
58	9.93738	6	0.301	0.238	9.94168	6	0.314	0.256	9.94580	6	0.328	0.274	2
59	9.93746	6	0.301	0.238	9.94175	6	0.314	0.256	9.94587	6	0.328	0.274	1
60	9.93753		0.301	0.239	9.94182		0.314	0.256	9.94593		0.328	0.274	0

	A_3	Z_3	Z_4		A_3	Z_3	Z_4		A_3	Z_3	Z_4	
	120° 300° 120°				119° 299° 119°				118° 298° 118°			

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \lessgtr K < 90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 $l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	62° 242°|62°				63° 243°|63°				64° 244°|64°				
	A_1	A_3	Z_3	Z_4	A_1	A_3	Z_3	Z_1	A_1	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.94593	7	0.328	0.274	9.94988	6	0.343	0.293	9.95366	6	0.358	0.312	60
1	9.94600	1	0.329	0.275	9.94995	1	0.343	0.293	9.95372	1	0.358	0.312	59
2	9.94607	1	0.329	0.275	9.95001	1	0.343	0.293	9.95378	1	0.359	0.312	58
3	9.94614	2	0.329	0.275	9.95007	2	0.344	0.294	9.95384	2	0.359	0.313	57
4	9.94620	3	0.329	0.276	9.95014	2	0.344	0.294	9.95391	2	0.359	0.313	56
5	9.94627	4	0.330	0.276	9.95020	3	0.344	0.294	9.95397	3	0.359	0.313	55
6	9.94634	4	0.330	0.276	9.95027	4	0.344	0.295	9.95403	4	0.360	0.314	54
7	9.94640	5	0.330	0.276	9.95033	4	0.345	0.295	9.95409	4	0.360	0.314	53
8	9.94647	6	0.330	0.277	9.95039	5	0.345	0.295	9.95415	5	0.360	0.314	52
9	9.94654	6	0.331	0.277	9.95046	5	0.345	0.296	9.95421	5	0.360	0.315	51
10	9.94660	7	0.331	0.277	9.95052	6	0.345	0.296	9.95427	6	0.361	0.315	50
11	9.94667	1	0.331	0.278	9.95059	1	0.346	0.296	9.95434	1	0.361	0.315	49
12	9.94674	1	0.331	0.278	9.95065	1	0.346	0.297	9.95440	1	0.361	0.316	48
13	9.94680	2	0.331	0.278	9.95071	2	0.346	0.297	9.95446	2	0.362	0.316	47
14	9.94687	3	0.332	0.279	9.95078	2	0.346	0.297	9.95452	2	0.362	0.316	46
15	9.94694	4	0.332	0.279	9.95084	3	0.347	0.298	9.95458	3	0.362	0.317	45
16	9.94700	4	0.332	0.279	9.95090	4	0.347	0.298	9.95464	4	0.362	0.317	44
17	9.94707	5	0.332	0.280	9.95097	4	0.347	0.298	9.95470	4	0.363	0.317	43
18	9.94714	6	0.333	0.280	9.95103	5	0.347	0.298	9.95476	5	0.363	0.318	42
19	9.94720	6	0.333	0.280	9.95110	5	0.348	0.299	9.95482	5	0.363	0.318	41
20	9.94727	7	0.333	0.280	9.95116	6	0.348	0.299	9.95488	0	0.363	0.318	40
21	9.94734	1	0.333	0.281	9.95122	1	0.348	0.299	9.95494	1	0.364	0.319	39
22	9.94740	1	0.334	0.281	9.95129	1	0.348	0.300	9.95500	1	0.364	0.319	38
23	9.94747	2	0.334	0.281	9.95135	2	0.349	0.300	9.95507	2	0.364	0.319	37
24	9.94753	3	0.334	0.282	9.95141	2	0.349	0.300	9.95513	2	0.364	0.320	36
25	9.94760	4	0.334	0.282	9.95148	3	0.349	0.301	9.95519	3	0.365	0.320	35
26	9.94767	4	0.335	0.282	9.95154	4	0.349	0.301	9.95525	4	0.365	0.320	34
27	9.94773	5	0.335	0.283	9.95160	4	0.350	0.301	9.95531	4	0.365	0.321	33
28	9.94780	6	0.335	0.283	9.95167	5	0.350	0.302	9.95537	5	0.365	0.321	32
29	9.94786	6	0.335	0.283	9.95173	5	0.350	0.302	9.95543	5	0.366	0.321	31
30	9.94793	7	0.336	0.284	9.95179	6	0.350	0.302	9.95549	6	0.366	0.322	30
31	9.94799	1	0.336	0.284	9.95185	1	0.351	0.303	9.95555	1	0.366	0.322	29
32	9.94806	1	0.336	0.284	9.95192	1	0.351	0.303	9.95561	1	0.367	0.322	28
33	9.94813	2	0.336	0.284	9.95198	2	0.351	0.303	9.95567	2	0.367	0.322	27
34	9.94819	3	0.337	0.285	9.95204	2	0.351	0.304	9.95573	2	0.367	0.323	26
35	9.94826	4	0.337	0.285	9.95211	3	0.352	0.304	9.95579	3	0.367	0.323	25
36	9.94832	4	0.337	0.285	9.95217	4	0.352	0.304	9.95585	4	0.368	0.323	24
37	9.94839	5	0.337	0.286	9.95223	4	0.352	0.304	9.95591	4	0.368	0.324	23
38	9.94845	6	0.338	0.286	9.95229	5	0.353	0.305	9.95597	5	0.368	0.324	22
39	9.94852	6	0.338	0.286	9.95236	5	0.353	0.305	9.95603	5	0.368	0.324	21
40	9.94858	7	0.338	0.287	9.95242	6	0.353	0.305	9.95609	6	0.369	0.325	20
41	9.94865	1	0.338	0.287	9.95248	1	0.353	0.306	9.95615	1	0.369	0.325	19
42	9.94871	1	0.339	0.287	9.95254	1	0.354	0.306	9.95621	1	0.369	0.325	18
43	9.94878	2	0.339	0.288	9.95261	2	0.354	0.306	9.95627	2	0.369	0.326	17
44	9.94885	3	0.339	0.288	9.95267	2	0.354	0.307	9.95633	2	0.370	0.326	16
45	9.94891	4	0.339	0.288	9.95273	3	0.354	0.307	9.95639	3	0.370	0.326	15
46	9.94898	4	0.339	0.288	9.95279	4	0.355	0.307	9.95645	4	0.370	0.327	14
47	9.94904	5	0.340	0.289	9.95286	4	0.355	0.308	9.95651	4	0.371	0.327	13
48	9.94911	6	0.340	0.289	9.95292	5	0.355	0.308	9.95657	5	0.371	0.327	12
49	9.94917	6	0.340	0.289	9.95298	5	0.355	0.308	9.95663	5	0.371	0.328	11
50	9.94923	0	0.340	0.290	9.95304	6	0.356	0.309	9.95668	6	0.371	0.328	10
51	9.94930	1	0.341	0.290	9.95310	1	0.356	0.309	9.95674	1	0.372	0.328	9
52	9.94936	1	0.341	0.290	9.95317	1	0.356	0.309	9.95680	1	0.372	0.329	8
53	9.94943	2	0.341	0.291	9.95323	2	0.356	0.310	9.95686	2	0.372	0.329	7
54	9.94949	2	0.341	0.291	9.95329	2	0.357	0.310	9.95692	2	0.372	0.329	6
55	9.94956	3	0.342	0.291	9.95335	3	0.357	0.310	9.95698	3	0.373	0.330	5
56	9.94962	4	0.342	0.292	9.95341	4	0.357	0.311	9.95704	4	0.373	0.330	4
57	9.94969	4	0.342	0.292	9.95348	4	0.357	0.311	9.95710	4	0.373	0.330	3
58	9.94975	5	0.342	0.292	9.95354	5	0.358	0.311	9.95716	5	0.374	0.331	2
59	9.94982	5	0.343	0.293	9.95360	5	0.358	0.311	9.95722	5	0.374	0.331	1
60	9.94988		0.343	0.293	9.95366		0.358	0.312	9.95728		0.374	0.331	0
	A_1		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	′
	117° 297°|117°				116° 296°|116°				115° 295°|115°				

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 $l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	65° 245°|65°				66° 246°|66°				67° 247°|67°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.95728	6	0.374	0.331	9.96073	6	0.391	0.351	9.96403	5	0.408	0.372	60
1	9.95733	1	0.374	0.332	9.96079	1	0.391	0.352	9.96408	1	0.408	0.372	59
2	9.95739	1	0.375	0.332	9.96084	1	0.391	0.352	9.96413	1	0.409	0.373	58
3	9.95745	2	0.375	0.332	9.96090	2	0.392	0.352	9.96419	2	0.409	0.373	57
4	9.95751	2	0.375	0.333	9.96095	2	0.392	0.353	9.96424	2	0.409	0.374	56
5	9.95757	3	0.375	0.333	9.96101	3	0.392	0.353	9.96429	3	0.410	0.374	55
6	9.95763	4	0.376	0.333	9.96107	4	0.392	0.353	9.96435	3	0.410	0.374	54
7	9.95769	4	0.376	0.334	9.96112	4	0.393	0.354	9.96440	4	0.410	0.375	53
8	9.95775	5	0.376	0.334	9.96118	5	0.393	0.354	9.96445	4	0.411	0.375	52
9	9.95780	5	0.376	0.334	9.96123	5	0.393	0.354	9.96451	5	0.411	0.375	51
10	9.95786	6	0.377	0.335	9.96129	6	0.394	0.355	9.96456	5	0.411	0.376	50
11	9.95792	1	0.377	0.335	9.96135	1	0.394	0.355	9.96461	1	0.411	0.376	49
12	9.95798	1	0.377	0.335	9.96140	1	0.394	0.356	9.96467	1	0.412	0.376	48
13	9.95804	2	0.378	0.336	9.96146	2	0.394	0.356	9.96472	2	0.412	0.377	47
14	9.95810	2	0.378	0.336	9.96151	2	0.395	0.356	9.96477	2	0.412	0.377	46
15	9.95815	3	0.378	0.336	9.96157	3	0.395	0.357	9.96483	3	0.413	0.377	45
16	9.95821	4	0.378	0.337	9.96162	4	0.395	0.357	9.96488	3	0.413	0.378	44
17	9.95827	4	0.379	0.337	9.96168	4	0.396	0.357	9.96493	4	0.413	0.378	43
18	9.95833	5	0.379	0.337	9.96174	5	0.396	0.358	9.96498	4	0.414	0.379	42
19	9.95839	5	0.379	0.338	9.96179	5	0.396	0.358	9.96504	5	0.414	0.379	41
20	9.95844	6	0.380	0.338	9.96185	6	0.396	0.358	9.96509	5	0.414	0.379	40
21	9.95850	1	0.380	0.338	9.96190	1	0.397	0.359	9.96514	1	0.414	0.380	39
22	9.95856	1	0.380	0.339	9.96196	1	0.397	0.359	9.96520	1	0.415	0.380	38
23	9.95862	2	0.380	0.339	9.96201	2	0.397	0.359	9.96525	2	0.415	0.380	37
24	9.95868	2	0.381	0.339	9.96207	2	0.398	0.360	9.96530	2	0.415	0.381	36
25	9.95873	3	0.381	0.340	9.96212	3	0.398	0.360	9.96535	3	0.416	0.381	35
26	9.95879	4	0.381	0.340	9.96218	4	0.398	0.360	9.96541	3	0.416	0.381	34
27	9.95885	4	0.381	0.340	9.96223	4	0.398	0.361	9.96546	4	0.416	0.382	33
28	9.95891	5	0.382	0.341	9.96229	5	0.399	0.361	9.96551	4	0.417	0.382	32
29	9.95897	5	0.382	0.341	9.96234	5	0.399	0.361	9.96556	5	0.417	0.382	31
30	9.95902	0	0.382	0.341	9.96240	5	0.399	0.362	9.96562	5	0.417	0.383	30
31	9.95908	1	0.383	0.342	9.96245	1	0.400	0.362	9.96567	1	0.417	0.383	29
32	9.95914	1	0.383	0.342	9.96251	1	0.400	0.362	9.96572	1	0.418	0.383	28
33	9.95920	2	0.383	0.342	9.96256	2	0.400	0.363	9.96577	2	0.418	0.384	27
34	9.95925	2	0.383	0.343	9.96262	2	0.400	0.363	9.96582	2	0.418	0.384	26
35	9.95931	3	0.384	0.343	9.96267	3	0.401	0.363	9.96588	3	0.419	0.385	25
36	9.95937	4	0.384	0.343	9.96273	3	0.401	0.364	9.96593	3	0.419	0.385	24
37	9.95942	4	0.384	0.344	9.96278	4	0.401	0.364	9.96598	4	0.419	0.385	23
38	9.95948	5	0.384	0.344	9.96284	4	0.402	0.364	9.96603	4	0.420	0.386	22
39	9.95954	5	0.385	0.344	9.96289	5	0.402	0.365	9.96608	5	0.420	0.386	21
40	9.95960	6	0.385	0.345	9.96294	5	0.402	0.365	9.96614	5	0.420	0.386	20
41	9.95965	1	0.385	0.345	9.96300	1	0.403	0.366	9.96619	1	0.421	0.387	19
42	9.95971	1	0.386	0.345	9.96305	1	0.403	0.366	9.96624	1	0.421	0.387	18
43	9.95977	2	0.386	0.346	9.96311	2	0.403	0.366	9.96629	2	0.421	0.387	17
44	9.95982	2	0.386	0.346	9.96316	2	0.403	0.367	0.96634	2	0.421	0.388	16
45	9.95988	3	0.386	0.346	9.96322	3	0.404	0.367	9.96640	3	0.422	0.388	15
46	9.95994	4	0.387	0.347	9.96327	3	0.404	0.367	9.96645	3	0.422	0.389	14
47	9.96000	4	0.387	0.347	9.96333	4	0.404	0.368	9.96650	4	0.422	0.389	13
48	9.96005	5	0.387	0.347	9.96338	4	0.405	0.368	9.96655	4	0.423	0.389	12
49	9.96011	5	0.388	0.348	9.96343	5	0.405	0.368	9.96660	5	0.423	0.390	11
50	9.96017	0	0.388	0.348	9.96349	5	0.405	0.369	9.96665	5	0.423	0.390	10
51	9.96022	1	0.388	0.348	9.96354	1	0.405	0.369	9.96670	1	0.424	0.390	9
52	9.96028	1	0.388	0.349	9.96360	1	0.406	0.369	9.96676	1	0.424	0.391	8
53	9.96034	2	0.389	0.349	9.96365	2	0.406	0.370	9.96681	2	0.424	0.391	7
54	9.96039	2	0.389	0.349	9.96370	2	0.406	0.370	9.96686	2	0.425	0.391	6
55	9.96045	3	0.389	0.350	9.96376	3	0.407	0.370	9.96691	3	0.425	0.392	5
56	9.96050	4	0.390	0.350	9.96381	3	0.407	0.371	9.96696	3	0.425	0.392	4
57	9.96056	4	0.390	0.350	9.96387	4	0.407	0.371	9.96701	4	0.425	0.393	3
58	9.96062	5	0.390	0.351	9.96392	4	0.408	0.371	9.96706	4	0.426	0.393	2
59	9.96067	5	0.390	0.351	9.96397	5	0.408	0.372	9.96711	5	0.426	0.393	1
60	9.96073		0.391	0.351	9.96403		0.408	0.372	9.96717		0.426	0.394	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_1	′
	114° 294°|114°				113° 293°|113°				112° 292°|112°				

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 l 与 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

,	68° 248° 68°				69° 249° 69°				70° 250° 70°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.96717	5	0.426	**0.394**	9.97015	5	0.446	**0.416**	9.97299	5	0.466	**0.439**	60
1	9.96722	1	0.427	**0.394**	9.97020	1	0.446	**0.416**	9.97303	1	0.466	**0.439**	59
2	9.96727	1	0.427	**0.394**	9.97025	1	0.446	**0.417**	9.97308	1	0.467	**0.440**	58
3	9.96732	2	0.427	**0.395**	9.97030	2	0.447	**0.417**	9.97312	2	0.467	**0.440**	57
4	9.96737	2	0.428	**0.395**	9.97035	2	0.447	**0.417**	9.97317	2	0.467	**0.441**	56
5	9.96742	3	0.428	**0.395**	9.97039	3	0.447	**0.418**	9.97322	3	0.468	**0.441**	55
6	9.96747	3	0.428	**0.396**	9.97044	3	0.448	**0.418**	9.97326	3	0.468	**0.441**	54
7	9.96752	4	0.429	**0.396**	9.97049	4	0.448	**0.418**	9.97331	4	0.468	**0.442**	53
8	9.96757	4	0.429	**0.397**	9.97054	4	0.448	**0.419**	9.97335	4	0.469	**0.442**	52
9	9.96762	5	0.429	**0.397**	9.97059	5	0.449	**0.419**	9.97340	5	0.469	**0.442**	51
10	9.96767	5	0.430	**0.397**	9.97063	5	0.449	**0.420**	9.97344	5	0.469	**0.443**	50
11	9.96772	1	0.430	**0.398**	9.97068	1	0.449	**0.420**	9.97349	1	0.470	**0.443**	49
12	9.96778	1	0.430	**0.398**	9.97073	1	0.450	**0.420**	9.97353	1	0.470	**0.444**	48
13	9.96783	2	0.431	**0.398**	9.97078	2	0.450	**0.421**	9.97358	2	0.470	**0.444**	47
14	9.96788	2	0.431	**0.399**	9.97083	2	0.450	**0.421**	9.97363	2	0.471	**0.444**	46
15	9.96793	3	0.431	**0.399**	9.97087	3	0.451	**0.422**	9.97367	3	0.471	**0.445**	45
16	9.96798	3	0.431	**0.399**	9.97092	3	0.451	**0.422**	9.97372	3	0.472	**0.445**	44
17	9.96803	4	0.432	**0.400**	9.97097	4	0.451	**0.422**	9.97376	4	0.472	**0.446**	43
18	9.96808	4	0.432	**0.400**	9.97102	4	0.452	**0.423**	9.97381	4	0.472	**0.446**	42
19	9.96813	5	0.432	**0.401**	9.97107	5	0.452	**0.423**	9.97385	5	0.473	**0.446**	41
20	9.96818	5	0.433	**0.401**	9.97111	5	0.452	**0.423**	9.97390	4	0.473	**0.447**	40
21	9.96823	1	0.433	**0.401**	9.97116	1	0.453	**0.424**	9.97394	0	0.473	**0.447**	39
22	9.96828	1	0.433	**0.402**	9.97121	1	0.453	**0.424**	9.97399	1	0.474	**0.448**	38
23	9.96833	2	0.434	**0.402**	9.97126	2	0.453	**0.425**	9.97403	1	0.474	**0.448**	37
24	9.96838	2	0.434	**0.402**	9.97130	2	0.454	**0.425**	9.97408	2	0.474	**0.448**	36
25	9.96843	3	0.434	**0.403**	9.97135	3	0.454	**0.425**	9.97412	2	0.475	**0.449**	35
26	9.96848	3	0.435	**0.403**	9.97140	3	0.454	**0.426**	9.97417	2	0.475	**0.449**	34
27	9.96853	4	0.435	**0.403**	9.97145	4	0.455	**0.426**	9.97421	3	0.475	**0.450**	33
28	9.96858	4	0.435	**0.404**	9.97149	4	0.455	**0.426**	9.97426	3	0.476	**0.450**	32
29	9.96863	5	0.436	**0.404**	9.97154	5	0.455	**0.427**	9.97430	4	0.476	**0.450**	31
30	9.96868	5	0.436	**0.405**	9.97159	5	0.456	**0.427**	9.97435	4	0.477	**0.451**	30
31	9.96873	1	0.436	**0.405**	9.97163	1	0.456	**0.428**	9.97439	0	0.477	**0.451**	29
32	9.96878	1	0.437	**0.405**	9.97168	1	0.456	**0.428**	9.97444	1	0.477	**0.452**	28
33	9.96883	2	0.437	**0.406**	9.97173	2	0.457	**0.428**	9.97448	1	0.478	**0.452**	27
34	9.96888	2	0.437	**0.406**	9.97178	2	0.457	**0.429**	9.97453	2	0.478	**0.452**	26
35	9.96893	3	0.438	**0.406**	9.97182	3	0.457	**0.429**	9.97457	2	0.478	**0.453**	25
36	9.96898	3	0.438	**0.407**	9.97187	3	0.458	**0.430**	9.97461	2	0.479	**0.453**	24
37	9.96903	4	0.438	**0.407**	9.97192	4	0.458	**0.430**	9.97466	3	0.479	**0.454**	23
38	9.96907	4	0.438	**0.408**	9.97196	4	0.458	**0.430**	9.97470	3	0.479	**0.454**	22
39	9.96912	5	0.439	**0.408**	9.97201	5	0.459	**0.431**	9.97475	4	0.480	**0.454**	21
40	9.96917	5	0.439	**0.408**	9.97206	5	0.459	**0.431**	9.97479	4	0.480	**0.455**	20
41	9.96922	1	0.439	**0.409**	9.97210	1	0.459	**0.432**	9.97484	0	0.480	**0.455**	19
42	9.96927	1	0.440	**0.409**	9.97215	1	0.460	**0.432**	9.97488	1	0.481	**0.456**	18
43	9.96932	2	0.440	**0.409**	9.97220	2	0.460	**0.432**	9.97492	1	0.481	**0.456**	17
44	9.96937	2	0.440	**0.410**	9.97224	2	0.460	**0.433**	9.97497	2	0.482	**0.457**	16
45	9.96942	3	0.441	**0.410**	9.97229	3	0.461	**0.433**	9.97501	2	0.482	**0.457**	15
46	9.96947	3	0.441	**0.411**	9.97234	3	0.461	**0.433**	9.97506	2	0.482	**0.457**	14
47	9.96952	4	0.441	**0.411**	9.97238	4	0.461	**0.434**	9.97510	3	0.483	**0.458**	13
48	9.96957	4	0.442	**0.411**	9.97243	4	0.462	**0.434**	9.97515	3	0.483	**0.458**	12
49	9.96962	5	0.442	**0.412**	9.97248	5	0.462	**0.435**	9.97519	4	0.483	**0.459**	11
50	9.96966	5	0.442	**0.412**	9.97252	5	0.462	**0.435**	9.97523	4	0.484	**0.459**	10
51	9.96971	1	0.443	**0.412**	9.97257	1	0.463	**0.435**	9.97528	0	0.484	**0.459**	9
52	9.96976	1	0.443	**0.413**	9.97262	1	0.463	**0.436**	9.97532	1	0.484	**0.460**	8
53	9.96981	2	0.443	**0.413**	9.97266	2	0.464	**0.436**	9.97536	1	0.485	**0.460**	7
54	9.96986	2	0.444	**0.414**	9.97271	2	0.464	**0.437**	9.97541	2	0.485	**0.461**	6
55	9.96991	3	0.444	**0.414**	9.97276	3	0.464	**0.437**	9.97545	2	0.486	**0.461**	5
56	9.96996	3	0.444	**0.414**	9.97280	3	0.465	**0.437**	9.97550	2	0.486	**0.461**	4
57	9.97001	4	0.445	**0.415**	9.97285	4	0.465	**0.438**	9.97554	3	0.486	**0.462**	3
58	9.97005	4	0.445	**0.415**	9.97289	4	0.465	**0.438**	9.97558	3	0.487	**0.462**	2
59	9.97010	5	0.445	**0.415**	9.97294	5	0.466	**0.439**	9.97563	4	0.487	**0.463**	1
60	9.97015		0.446	**0.416**	9.97299		0.466	**0.439**	9.97567		0.487	**0.463**	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	
	111° 291° 111°				110° 290° 110°				109° 289° 109°				,

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 与 $K<90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 l 与 $K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

,	71° 251° 71°				72° 252° 72°				73° 253° 73°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.97567	4	0.487	**0.463**	9.97821	4	0.510	**0.488**	9.98060	4	0.534	**0.515**	60
1	9.97571	0	0.488	**0.463**	9.97825	0	0.510	**0.489**	9.98063	0	0.534	**0.515**	59
2	9.97576	1	0.488	**0.464**	9.97829	1	0.511	**0.489**	9.98067	1	0.535	**0.516**	58
3	9.97580	1	0.488	**0.464**	9.97833	1	0.511	**0.490**	9.98071	1	0.535	**0.516**	57
4	9.97584	2	0.489	**0.465**	9.97837	2	0.512	**0.490**	9.98075	2	0.536	**0.516**	56
5	9.97589	2	0.489	**0.465**	9.97841	2	0.512	**0.490**	9.98079	2	0.536	**0.517**	55
6	9.97593	2	0.490	**0.465**	9.97845	2	0.512	**0.491**	9.98083	2	0.537	**0.517**	54
7	9.97597	3	0.490	**0.466**	9.97849	3	0.513	**0.491**	9.98087	3	0.537	**0.518**	53
8	9.97602	3	0.490	**0.466**	9.97853	3	0.513	**0.492**	9.98090	3	0.537	**0.518**	52
9	9.97606	4	0.491	**0.467**	9.97857	4	0.514	**0.492**	9.98094	4	0.538	**0.519**	51
10	9.97610	4	0.491	**0.467**	9.97861	4	0.514	**0.493**	9.98098	4	0.538	**0.519**	50
11	9.97615	0	0.491	**0.468**	9.97866	0	0.514	**0.493**	9.98102	0	0.539	**0.520**	49
12	9.97619	1	0.492	**0.468**	9.97870	1	0.515	**0.493**	9.98106	1	0.539	**0.520**	48
13	9.97623	1	0.492	**0.468**	9.97874	1	0.515	**0.494**	9.98110	1	0.539	**0.521**	47
14	9.97628	2	0.493	**0.469**	9.97878	2	0.515	**0.494**	9.98113	2	0.540	**0.521**	46
15	9.97632	2	0.493	**0.469**	9.97882	2	0.516	**0.495**	9.98117	2	0.540	**0.521**	45
16	9.97636	2	0.493	**0.470**	9.97886	2	0.516	**0.495**	9.98121	2	0.541	**0.522**	44
17	9.97640	3	0.494	**0.470**	9.97890	3	0.517	**0.496**	9.98125	3	0.541	**0.522**	43
18	9.97645	3	0.494	**0.470**	9.97894	3	0.517	**0.496**	9.98129	3	0.542	**0.523**	42
19	9.97649	4	0.494	**0.471**	9.97898	4	0.517	**0.496**	9.98132	4	0.542	**0.523**	41
20	9.97653	4	0.495	**0.471**	9.97902	4	0.518	**0.497**	9.98136	4	0.542	**0.524**	40
21	9.97657	0	0.495	**0.472**	9.97906	0	0.518	**0.497**	9.98140	0	0.543	**0.524**	39
22	9.97662	1	0.496	**0.472**	9.97910	1	0.519	**0.498**	9.98144	1	0.543	**0.525**	38
23	9.97666	1	0.496	**0.473**	9.97914	1	0.519	**0.498**	9.98147	1	0.544	**0.525**	37
24	9.97670	2	0.496	**0.473**	9.97918	2	0.519	**0.499**	9.98151	2	0.544	**0.526**	36
25	9.97674	2	0.497	**0.473**	9.97922	2	0.520	**0.499**	9.98155	2	0.545	**0.526**	35
26	9.97679	2	0.497	**0.474**	9.97926	2	0.520	**0.500**	9.98159	2	0.545	**0.527**	34
27	9.97683	3	0.497	**0.474**	9.97930	3	0.521	**0.500**	9.98162	3	0.545	**0.527**	33
28	9.97687	3	0.498	**0.475**	9.97934	3	0.521	**0.500**	9.98166	3	0.546	**0.527**	32
29	9.97691	4	0.498	**0.475**	9.97938	4	0.521	**0.501**	9.98170	4	0.546	**0.528**	31
30	9.97696	4	0.499	**0.475**	9.97942	4	0.522	**0.501**	9.98174	4	0.547	**0.528**	30
31	9.97700	0	0.499	**0.476**	9.97946	0	0.522	**0.502**	9.98177	0	0.547	**0.529**	29
32	9.97704	1	0.499	**0.476**	9.97950	1	0.523	**0.502**	9.98181	1	0.548	**0.529**	28
33	9.97708	1	0.500	**0.477**	9.97954	1	0.523	**0.503**	9.98185	1	0.548	**0.530**	27
34	9.97713	2	0.500	**0.477**	9.97958	2	0.523	**0.503**	9.98189	2	0.548	**0.530**	26
35	9.97717	2	0.500	**0.478**	9.97962	2	0.524	**0.503**	9.98192	2	0.549	**0.531**	25
36	9.97721	2	0.501	**0.478**	9.97966	2	0.524	**0.504**	9.98196	2	0.549	**0.531**	24
37	9.97725	3	0.501	**0.478**	9.97970	3	0.525	**0.504**	9.98200	3	0.550	**0.532**	23
38	9.97729	3	0.502	**0.479**	9.97974	3	0.525	**0.505**	9.98204	3	0.550	**0.532**	22
39	9.97734	4	0.502	**0.479**	9.97978	4	0.525	**0.505**	9.98207	4	0.551	**0.533**	21
40	9.97738	4	0.502	**0.480**	9.97982	4	0.526	**0.506**	9.98211	4	0.551	**0.533**	20
41	9.97742	0	0.503	**0.480**	9.97986	0	0.526	**0.506**	9.98215	0	0.551	**0.534**	19
42	9.97746	1	0.503	**0.481**	9.97989	1	0.527	**0.507**	9.98218	1	0.552	**0.534**	18
43	9.97750	1	0.503	**0.481**	9.97993	1	0.527	**0.507**	9.98222	1	0.552	**0.534**	17
44	9.97754	2	0.504	**0.481**	9.97997	2	0.528	**0.507**	9.98226	2	0.553	**0.535**	16
45	9.97759	2	0.504	**0.482**	9.98001	2	0.528	**0.508**	9.98229	2	0.553	**0.535**	15
46	9.97763	2	0.505	**0.482**	9.98005	2	0.528	**0.508**	9.98233	2	0.554	**0.536**	14
47	9.97767	3	0.505	**0.483**	9.98009	3	0.529	**0.509**	9.98237	3	0.554	**0.536**	13
48	9.97771	3	0.505	**0.483**	9.98013	3	0.529	**0.509**	9.98240	3	0.554	**0.537**	12
49	9.97775	4	0.506	**0.484**	9.98017	4	0.530	**0.510**	9.98244	4	0.555	**0.537**	11
50	9.97779	4	0.506	**0.484**	9.98021	4	0.530	**0.510**	9.98248	4	0.555	**0.538**	10
51	9.97784	0	0.507	**0.484**	9.98025	0	0.530	**0.511**	9.98251	0	0.556	**0.538**	9
52	9.97788	1	0.507	**0.485**	9.98029	1	0.531	**0.511**	9.98255	1	0.556	**0.539**	8
53	9.97792	1	0.507	**0.485**	9.98032	1	0.531	**0.512**	9.98259	1	0.557	**0.539**	7
54	9.97796	2	0.508	**0.486**	9.98036	2	0.532	**0.512**	9.98262	2	0.557	**0.540**	6
55	9.97800	2	0.508	**0.486**	9.98040	2	0.532	**0.512**	9.98266	2	0.557	**0.540**	5
56	9.97804	2	0.508	**0.487**	9.98044	2	0.532	**0.513**	9.98270	2	0.558	**0.541**	4
57	9.97808	3	0.509	**0.487**	9.98048	3	0.533	**0.513**	9.98273	3	0.558	**0.541**	3
58	9.97812	3	0.509	**0.487**	9.98052	3	0.533	**0.514**	9.98277	3	0.559	**0.542**	2
59	9.97817	4	0.510	**0.488**	9.98056	4	0.534	**0.514**	9.98281	4	0.559	**0.542**	1
60	9.97821		0.510	**0.488**	9.98060		0.534	**0.515**	9.98284		0.560	**0.543**	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	
	108° 288° 108°				107° 287° 107°				106° 286° 106°				,

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 与 $K<90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 $l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

,	74° 254° | 74° 105°				75° 255° | 75° 104°				76° 256° | 76° 103°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.98284	4	0.560	0.543	9.98494	3	0.587	0.572	9.98690	3	0.616	0.603	60
1	9.98288	0	0.560	0.543	9.98498	0	0.587	0.572	9.98694	0	0.617	0.604	59
2	9.98291	1	0.561	0.543	9.98501	1	0.588	0.573	9.98697	1	0.617	0.604	58
3	9.98295	1	0.561	0.544	9.98505	1	0.588	0.573	9.98700	1	0.618	0.605	57
4	9.98299	2	0.561	0.544	9.98508	1	0.589	0.574	9.98703	1	0.618	0.605	56
5	9.98302	2	0.562	0.545	9.98511	2	0.589	0.574	9.98706	2	0.619	0.606	55
6	9.98306	2	0.562	0.545	9.98515	2	0.590	0.575	9.98709	2	0.619	0.606	54
7	9.98309	3	0.563	0.546	9.98518	2	0.590	0.575	9.98712	2	0.620	0.607	53
8	9.98313	3	0.563	0.546	9.98521	2	0.591	0.576	9.98715	2	0.620	0.608	52
9	9.98317	4	0.564	0.547	9.98525	3	0.591	0.577	9.98719	3	0.621	0.608	51
10	9.98320	4	0.564	0.547	9.98528	3	0.592	0.577	9.98722	3	0.621	0.609	50
11	9.98324	0	0.565	0.548	9.98531	0	0.592	0.578	9.98725	0	0.622	0.609	49
12	9.98327	1	0.565	0.548	9.98535	1	0.593	0.578	9.98728	1	0.622	0.610	48
13	9.98331	1	0.565	0.549	9.98538	1	0.593	0.579	9.98731	1	0.623	0.610	47
14	9.98334	2	0.566	0.549	9.98541	1	0.594	0.579	9.98734	1	0.623	0.611	46
15	9.98338	2	0.566	0.550	9.98545	2	0.594	0.580	9.98737	2	0.624	0.611	45
16	9.98342	2	0.567	0.550	9.98548	2	0.595	0.580	9.98740	2	0.625	0.612	44
17	9.98345	3	0.567	0.551	9.98551	2	0.595	0.581	9.98743	2	0.625	0.612	43
18	9.98349	3	0.568	0.551	9.98555	2	0.596	0.581	9.98746	2	0.626	0.613	42
19	9.98352	4	0.568	0.552	9.98558	3	0.596	0.582	9.98750	3	0.626	0.614	41
20	9.98356	4	0.569	0.552	9.98561	3	0.597	0.582	9.98753	3	0.627	0.614	40
21	9.98359	0	0.569	0.553	9.98565	0	0.597	0.583	9.98756	0	0.627	0.615	39
22	9.98363	1	0.569	0.553	9.98568	1	0.598	0.583	9.98759	1	0.628	0.615	38
23	9.98366	1	0.570	0.554	9.98571	1	0.598	0.584	9.98762	1	0.628	0.616	37
24	9.98370	2	0.570	0.554	9.98574	1	0.598	0.584	9.98765	1	0.629	0.616	36
25	9.98373	2	0.571	0.555	9.98578	2	0.599	0.585	9.98768	2	0.629	0.617	35
26	9.98377	2	0.571	0.555	9.98581	2	0.599	0.585	9.98771	2	0.630	0.617	34
27	9.98381	3	0.572	0.556	9.98584	2	0.600	0.586	9.98774	2	0.630	0.618	33
28	9.98384	3	0.572	0.556	9.98588	2	0.600	0.586	9.98777	2	0.631	0.619	32
29	9.98388	4	0.573	0.557	9.98591	3	0.601	0.587	9.98780	3	0.631	0.619	31
30	9.98391	3	0.573	0.557	9.98594	3	0.601	0.587	9.98783	3	0.632	0.620	30
31	9.98395	0	0.574	0.558	9.98597	0	0.602	0.588	9.98786	0	0.632	0.620	29
32	9.98398	1	0.574	0.558	9.98601	1	0.602	0.588	9.98789	1	0.633	0.621	28
33	9.98402	1	0.574	0.558	9.98604	1	0.603	0.589	9.98792	1	0.633	0.621	27
34	9.98405	1	0.575	0.559	9.98607	1	0.603	0.589	9.98795	1	0.634	0.622	26
35	9.98409	2	0.575	0.559	9.98610	2	0.604	0.590	9.98798	2	0.634	0.622	25
36	9.98412	2	0.576	0.560	9.98614	2	0.604	0.590	9.98801	2	0.635	0.623	24
37	9.98415	2	0.576	0.560	9.98617	2	0.605	0.591	9.98804	2	0.636	0.624	23
38	9.98419	2	0.577	0.561	9.98620	2	0.605	0.592	9.98807	2	0.636	0.624	22
39	9.98422	3	0.577	0.561	9.98623	3	0.606	0.592	9.98810	3	0.637	0.625	21
40	9.98426	3	0.578	0.562	9.98627	3	0.606	0.593	9.98813	3	0.637	0.625	20
41	9.98429	0	0.578	0.562	9.98630	0	0.607	0.593	9.98816	0	0.638	0.626	19
42	9.98433	1	0.579	0.563	9.98633	1	0.607	0.594	9.98819	1	0.638	0.626	18
43	9.98436	1	0.579	0.563	9.98636	1	0.608	0.594	9.98822	1	0.639	0.627	17
44	9.98440	1	0.580	0.564	9.98640	1	0.608	0.595	9.98825	1	0.639	0.628	16
45	9.98443	2	0.580	0.564	9.98643	2	0.609	0.595	9.98828	2	0.640	0.628	15
46	9.98447	2	0.580	0.565	9.98646	2	0.609	0.596	9.98831	2	0.640	0.629	14
47	9.98450	2	0.581	0.565	9.98649	2	0.610	0.596	9.98834	2	0.641	0.629	13
48	9.98453	2	0.581	0.566	9.98652	2	0.610	0.597	9.98837	2	0.641	0.630	12
49	9.98457	3	0.582	0.566	9.98656	3	0.611	0.597	9.98840	3	0.642	0.630	11
50	9.98460	3	0.582	0.567	9.98659	3	0.611	0.598	9.98843	3	0.642	0.631	10
51	9.98464	0	0.583	0.567	9.98662	0	0.612	0.598	9.98846	0	0.643	0.631	9
52	9.98467	1	0.583	0.568	9.98665	1	0.612	0.599	9.98849	1	0.644	0.632	8
53	9.98471	1	0.584	0.568	9.98668	1	0.613	0.599	9.98852	1	0.644	0.633	7
54	9.98474	1	0.584	0.569	9.98671	1	0.613	0.600	9.98855	1	0.645	0.633	6
55	9.98477	2	0.585	0.569	9.98675	2	0.614	0.601	9.98858	2	0.645	0.634	5
56	9.98481	2	0.585	0.570	9.98678	2	0.614	0.601	9.98861	2	0.646	0.634	4
57	9.98484	2	0.586	0.570	9.98681	2	0.615	0.602	9.98864	2	0.646	0.635	3
58	9.98488	2	0.586	0.571	9.98684	2	0.615	0.602	9.98867	2	0.647	0.635	2
59	9.98491	3	0.587	0.571	9.98687	3	0.616	0.603	9.98869	3	0.647	0.636	1
60	9.98494		0.587	0.572	9.98690		0.616	0.603	9.98872		0.648	0.637	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	
	105° 285° | 105°				104° 284° | 104°				103° 283° | 103°				,

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV 高度及方位角計算表 $l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

,	77° 257° | 77° 102°				78° 258° | 78° 101°				79° 259° | 79° 100°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.98872	3	0.648	0.637	9.99040	3	0.682	0.673	9.99195	2	0.719	0.711	60
1	9.98875	0	0.648	0.637	9.99043	0	0.683	0.673	9.99197	0	0.720	0.712	59
2	9.98878	1	0.649	0.638	9.99046	1	0.683	0.674	9.99200	0	0.721	0.713	58
3	9.98881	1	0.650	0.638	9.99048	1	0.684	0.674	9.99202	1	0.721	0.713	57
4	9.98884	1	0.650	0.639	9.99051	1	0.685	0.675	9.99204	1	0.722	0.714	56
5	9.98887	2	0.651	0.640	9.99054	2	0.685	0.676	9.99207	1	0.723	0.715	55
6	9.98890	2	0.651	0.640	9.99056	2	0.686	0.676	9.99209	1	0.723	0.715	54
7	9.98893	2	0.652	0.641	9.99059	2	0.686	0.677	9.99212	1	0.724	0.716	53
8	9.98896	2	0.652	0.641	9.99062	2	0.687	0.678	9.99214	2	0.725	0.717	52
9	9.98898	3	0.653	0.642	9.99064	3	0.688	0.678	9.99217	2	0.725	0.717	51
10	9.98901	3	0.653	0.642	9.99067	3	0.688	0.679	9.99219	2	0.726	0.718	50
11	9.98904	0	0.654	0.643	9.99070	0	0.689	0.679	9.99221	0	0.727	0.719	49
12	9.98907	1	0.655	0.644	9.99072	1	0.689	0.680	9.99224	0	0.727	0.720	48
13	9.98910	1	0.655	0.644	9.99075	1	0.690	0.681	9.99226	1	0.728	0.720	47
14	9.98913	1	0.656	0.645	9.99078	1	0.691	0.681	9.99229	1	0.729	0.721	46
15	9.98916	2	0.656	0.645	9.99080	2	0.691	0.682	9.99231	1	0.729	0.722	45
16	9.98919	2	0.657	0.646	9.99083	2	0.692	0.683	9.99233	1	0.730	0.722	44
17	9.98921	2	0.657	0.647	9.99086	2	0.692	0.683	9.99236	1	0.731	0.723	43
18	9.98924	2	0.658	0.647	9.99088	2	0.693	0.684	9.99238	2	0.731	0.724	42
19	9.98927	3	0.658	0.648	9.99091	3	0.694	0.684	9.99241	2	0.732	0.724	41
20	9.98930	3	0.659	0.648	9.99093	3	0.694	0.685	9.99243	2	0.733	0.725	40
21	9.98933	0	0.660	0.649	9.99096	0	0.695	0.686	9.99245	0	0.733	0.726	39
22	9.98936	1	0.660	0.649	9.99099	1	0.695	0.686	9.99248	0	0.734	0.726	38
23	9.98938	1	0.661	0.650	9.99101	1	0.696	0.687	9.99250	1	0.735	0.727	37
24	9.98941	1	0.661	0.651	9.99104	1	0.697	0.688	9.99252	1	0.735	0.728	36
25	9.98944	2	0.662	0.651	9.99106	2	0.697	0.688	9.99255	1	0.736	0.729	35
26	9.98947	2	0.662	0.652	9.99109	2	0.698	0.689	9.99257	1	0.737	0.729	34
27	9.98950	2	0.663	0.652	9.99112	2	0.698	0.690	9.99260	1	0.737	0.730	33
28	9.98953	2	0.664	0.653	9.99114	2	0.699	0.690	9.99262	2	0.738	0.731	32
29	9.98955	3	0.664	0.654	9.99117	3	0.700	0.691	9.99264	2	0.739	0.731	31
30	9.98958	3	0.665	0.654	9.99119	3	0.700	0.692	9.99267	2	0.739	0.732	30
31	9.98961	0	0.665	0.655	9.99122	0	0.701	0.692	9.99269	0	0.740	0.733	29
32	9.98964	1	0.666	0.655	9.99124	1	0.702	0.693	9.99271	0	0.741	0.733	28
33	9.98967	1	0.666	0.656	9.99127	1	0.702	0.693	9.99274	1	0.741	0.734	27
34	9.98969	1	0.667	0.657	9.99130	1	0.703	0.694	9.99276	1	0.742	0.735	26
35	9.98972	2	0.668	0.657	9.99132	2	0.703	0.695	9.99278	1	0.743	0.736	25
36	9.98975	2	0.668	0.658	9.99135	2	0.704	0.695	9.99281	1	0.743	0.736	24
37	9.98978	2	0.669	0.658	9.99137	2	0.705	0.696	9.99283	1	0.744	0.737	23
38	9.98980	2	0.669	0.659	9.99140	2	0.705	0.697	9.99285	2	0.745	0.738	22
39	9.98983	3	0.670	0.660	9.99142	3	0.706	0.697	9.99288	2	0.746	0.738	21
40	9.98986	3	0.670	0.660	9.99145	3	0.707	0.698	9.99290	2	0.746	0.739	20
41	9.98989	0	0.671	0.661	9.99147	0	0.707	0.699	9.99292	0	0.747	0.740	19
42	9.98991	1	0.672	0.661	9.99150	1	0.708	0.699	9.99294	0	0.748	0.741	18
43	9.98994	1	0.672	0.662	9.99152	1	0.708	0.700	9.99297	1	0.748	0.741	17
44	9.98997	1	0.673	0.663	9.99155	1	0.709	0.701	9.99299	1	0.749	0.742	16
45	9.99000	2	0.673	0.663	9.99157	2	0.710	0.701	9.99301	1	0.750	0.743	15
46	9.99002	2	0.674	0.664	9.99160	2	0.710	0.702	9.99304	1	0.750	0.743	14
47	9.99005	2	0.674	0.665	9.99162	2	0.711	0.703	9.99306	1	0.751	0.744	13
48	9.99008	2	0.675	0.665	9.99165	2	0.712	0.703	9.99308	2	0.752	0.745	12
49	9.99011	3	0.676	0.666	9.99167	3	0.712	0.704	9.99310	2	0.753	0.746	11
50	9.99013	3	0.676	0.666	9.99170	2	0.713	0.705	9.99313	2	0.753	0.746	10
51	9.99016	0	0.677	0.667	9.99172	0	0.714	0.705	9.99315	0	0.754	0.747	9
52	9.99019	1	0.677	0.668	9.99175	0	0.714	0.706	9.99317	0	0.755	0.748	8
53	9.99022	1	0.678	0.668	9.99177	1	0.715	0.707	9.99319	1	0.755	0.749	7
54	9.99024	1	0.679	0.669	9.99180	1	0.716	0.707	9.99322	1	0.756	0.749	6
55	9.99027	2	0.679	0.669	9.99182	1	0.716	0.708	9.99324	1	0.757	0.750	5
56	9.99030	2	0.680	0.670	9.99185	1	0.717	0.709	9.99326	1	0.757	0.751	4
57	9.99032	2	0.680	0.671	9.99187	1	0.717	0.709	9.99328	1	0.758	0.751	3
58	9.99035	2	0.681	0.671	9.99190	2	0.718	0.710	9.99331	2	0.759	0.752	2
59	9.99038	3	0.682	0.672	9.99192	2	0.719	0.711	9.99333	2	0.760	0.753	1
60	9.99040		0.682	0.673	9.99195		0.719	0.711	9.99335		0.760	0.754	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	
	102° 282 | 102°				101° 281° | 101°				100° 280° | 100°				,

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　$l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	80° (260° | 80°)				81° (261° | 81°)				82° (262° | 82°)				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.99335		0.760	**0.754**	9.99462		0.806	**0.800**	9.99575		0.856	**0.852**	60
1	9.99337		0.761	**0.754**	9.99464		0.806	**0.801**	9.99577		0.857	**0.853**	59
2	9.99340		0.762	**0.755**	9.99466		0.807	**0.802**	9.99579		0.858	**0.854**	58
3	9.99342		0.762	**0.756**	9.99468		0.808	**0.803**	9.99581		0.859	**0.855**	57
4	9.99344		0.763	**0.757**	9.99470		0.809	**0.804**	9.99582		0.860	**0.856**	56
5	9.99346		0.764	**0.757**	9.99472		0.810	**0.804**	9.99584		0.861	**0.857**	55
6	9.99348		0.765	**0.758**	9.99474		0.810	**0.805**	9.99586		0.862	**0.858**	54
7	9.99351		0.765	**0.759**	9.99476		0.811	**0.806**	9.99588		0.863	**0.859**	53
8	9.99353		0.766	**0.760**	9.99478		0.812	**0.807**	9.99589		0.864	**0.860**	52
9	9.99355		0.767	**0.760**	9.99480		0.813	**0.808**	9.99591		0.865	**0.861**	51
10	9.99357		0.768	**0.761**	9.99482		0.814	**0.809**	9.99593		0.866	**0.861**	50
11	9.99359		0.768	**0.762**	9.99484		0.815	**0.809**	9.99595		0.866	**0.862**	49
12	9.99362		0.769	**0.763**	9.99486		0.815	**0.810**	9.99596		0.867	**0.863**	48
13	9.99364		0.770	**0.763**	9.99488		0.816	**0.811**	9.99598		0.868	**0.864**	47
14	9.99366		0.770	**0.764**	9.99490		0.817	**0.812**	9.99600		0.869	**0.865**	46
15	9.99368		0.771	**0.765**	9.99492		0.818	**0.813**	9.99601		0.870	**0.866**	45
16	9.99370		0.772	**0.766**	9.99494		0.819	**0.814**	9.99603		0.871	**0.867**	44
17	9.99372		0.773	**0.766**	9.99495		0.819	**0.814**	9.99605		0.872	**0.868**	43
18	9.99375		0.773	**0.767**	9.99497		0.820	**0.815**	9.99607		0.873	**0.869**	42
19	9.99377		0.774	**0.768**	9.99499		0.821	**0.816**	9.99608		0.874	**0.870**	41
20	9.99379		0.775	**0.769**	9.99501		0.822	**0.817**	9.99610		0.875	**0.871**	40
21	9.99381		0.776	**0.769**	9.99503		0.823	**0.818**	9.99612		0.876	**0.872**	39
22	9.99383		0.776	**0.770**	9.99505		0.824	**0.819**	9.99613		0.877	**0.873**	38
23	9.99385		0.777	**0.771**	9.99507		0.824	**0.819**	9.99615		0.878	**0.874**	37
24	9.99388		0.778	**0.772**	9.99509		0.825	**0.820**	9.99617		0.879	**0.875**	36
25	9.99390		0.779	**0.773**	9.99511		0.826	**0.821**	9.99618		0.880	**0.876**	35
26	9.99392		0.779	**0.773**	9.99513		0.827	**0.822**	9.99620		0.880	**0.877**	34
27	9.99394		0.780	**0.774**	9.99515		0.828	**0.823**	9.99622		0.881	**0.878**	33
28	9.99396		0.781	**0.775**	9.99517		0.829	**0.824**	9.99624		0.882	**0.879**	32
29	9.99398		0.782	**0.776**	9.99518		0.829	**0.825**	9.99625		0.883	**0.880**	31
30	9.99400		0.782	**0.776**	9.99520		0.830	**0.826**	9.99627		0.884	**0.881**	30
31	9.99402		0.783	**0.777**	9.99522		0.831	**0.826**	9.99629		0.885	**0.882**	29
32	9.99404		0.784	**0.778**	9.99524		0.832	**0.827**	9.99630		0.886	**0.883**	28
33	9.99407		0.785	**0.779**	9.99526		0.833	**0.828**	9.99632		0.887	**0.884**	27
34	9.99409		0.785	**0.780**	9.99528		0.834	**0.829**	9.99633		0.888	**0.884**	26
35	9.99411		0.786	**0.780**	9.99530		0.835	**0.830**	9.99635		0.889	**0.885**	25
36	9.99413		0.787	**0.781**	9.99532		0.835	**0.831**	9.99637		0.890	**0.886**	24
37	9.99415		0.788	**0.782**	9.99533		0.836	**0.832**	9.99638		0.891	**0.887**	23
38	9.99417		0.788	**0.783**	9.99535		0.837	**0.832**	9.99640		0.892	**0.888**	22
39	9.99419		0.789	**0.783**	9.99537		0.838	**0.833**	9.99642		0.893	**0.889**	21
40	9.99421		0.790	**0.784**	9.99539		0.839	**0.834**	9.99643		0.894	**0.890**	20
41	9.99423		0.791	**0.785**	9.99541		0.840	**0.835**	9.99645		0.895	**0.891**	19
42	9.99425		0.792	**0.786**	9.99543		0.841	**0.836**	9.99647		0.896	**0.892**	18
43	9.99427		0.792	**0.787**	9.99545		0.841	**0.837**	9.99648		0.897	**0.893**	17
44	9.99429		0.793	**0.787**	9.99546		0.842	**0.838**	9.99650		0.898	**0.894**	16
45	9.99432		0.794	**0.788**	9.99548		0.843	**0.839**	9.99651		0.899	**0.895**	15
46	9.99434		0.795	**0.789**	9.99550		0.844	**0.840**	9.99653		0.900	**0.896**	14
47	9.99436		0.795	**0.790**	9.99552		0.845	**0.840**	9.99655		0.901	**0.897**	13
48	9.99438		0.796	**0.791**	9.99554		0.846	**0.841**	9.99656		0.902	**0.898**	12
49	9.99440		0.797	**0.791**	9.99556		0.847	**0.842**	9.99658		0.903	**0.900**	11
50	9.99442		0.798	**0.792**	9.99557		0.848	**0.843**	9.99659		0.904	**0.901**	10
51	9.99444		0.799	**0.793**	9.99559		0.848	**0.844**	9.99661		0.905	**0.902**	9
52	9.99446		0.799	**0.794**	9.99561		0.849	**0.845**	9.99663		0.906	**0.903**	8
53	9.99448		0.800	**0.795**	9.99563		0.850	**0.846**	9.99664		0.907	**0.904**	7
54	9.99450		0.801	**0.795**	9.99565		0.851	**0.847**	9.99666		0.908	**0.905**	6
55	9.99452		0.802	**0.796**	9.99566		0.852	**0.848**	9.99667		0.909	**0.906**	5
56	9.99454		0.802	**0.797**	9.99568		0.853	**0.849**	9.99669		0.910	**0.907**	4
57	9.99456		0.803	**0.798**	9.99570		0.854	**0.849**	9.99670		0.911	**0.908**	3
58	9.99458		0.804	**0.799**	9.99572		0.855	**0.850**	9.99672		0.912	**0.909**	2
59	9.99460		0.805	**0.799**	9.99574		0.856	**0.851**	9.99674		0.913	**0.910**	1
60	9.99462		0.806	**0.800**	9.99575		0.856	**0.852**	9.99675		0.914	**0.911**	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	′
	99° (279° | 99°)				98° (278° | 98°)				97° (277° | 97°)				

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　$l \pm K(a, Z)$ 表

$A_1 + A_2 + A_3 = A_4 \rightarrow a$
$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$

′	83° (263° | 83°)				84° (264° | 84°)				85° (265° | 85°)				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	L. Sin.	P.P.	L. Sec.	L. Tan.	
0	9.99675		0.914	**0.911**	9.99761		0.981	**0.978**	9.99834		1.060	**1.058**	60
1	9.99677		0.915	**0.912**	9.99763		0.982	**0.980**	9.99836		1.061	**1.060**	59
2	9.99678		0.916	**0.913**	9.99764		0.983	**0.981**	9.99837		1.063	**1.061**	58
3	9.99680		0.917	**0.914**	9.99765		0.984	**0.982**	9.99838		1.064	**1.062**	57
4	9.99681		0.918	**0.915**	9.99767		0.986	**0.983**	9.99839		1.066	**1.064**	56
5	9.99683		0.919	**0.916**	9.99768		0.987	**0.984**	9.99840		1.067	**1.065**	55
6	9.99684		0.920	**0.917**	9.99769		0.988	**0.986**	9.99841		1.068	**1.067**	54
7	9.99686		0.921	**0.918**	9.99771		0.989	**0.987**	9.99842		1.070	**1.068**	53
8	9.99687		0.922	**0.919**	9.99772		0.990	**0.988**	9.99843		1.071	**1.070**	52
9	9.99689		0.923	**0.920**	9.99773		0.992	**0.989**	9.99844		1.073	**1.071**	51
10	9.99690		0.925	**0.921**	9.99775		0.993	**0.991**	9.99845		1.074	**1.073**	50
11	9.99692		0.926	**0.922**	9.99776		0.994	**0.992**	9.99846		1.076	**1.074**	49
12	9.99693		0.927	**0.924**	9.99777		0.995	**0.993**	9.99847		1.077	**1.076**	48
13	9.99695		0.928	**0.925**	9.99778		0.997	**0.994**	9.99848		1.079	**1.077**	47
14	9.99696		0.929	**0.926**	9.99780		0.998	**0.996**	9.99850		1.080	**1.079**	46
15	9.99698		0.930	**0.927**	9.99781		0.999	**0.997**	9.99851		1.082	**1.080**	45
16	9.99699		0.931	**0.928**	9.99782		1.000	**0.998**	9.99852		1.083	**1.082**	44
17	9.99701		0.932	**0.929**	9.99783		1.002	**1.000**	9.99853		1.085	**1.084**	43
18	9.99702		0.933	**0.930**	9.99785		1.003	**1.001**	9.99854		1.087	**1.085**	42
19	9.99704		0.934	**0.931**	9.99786		1.004	**1.002**	9.99855		1.088	**1.087**	41
20	9.99705		0.935	**0.932**	9.99787		1.006	**1.003**	9.99856		1.090	**1.088**	40
21	9.99707		0.936	**0.933**	9.99788		1.007	**1.005**	9.99857		1.091	**1.090**	39
22	9.99708		0.937	**0.934**	9.99790		1.008	**1.006**	9.99858		1.093	**1.091**	38
23	9.99710		0.938	**0.936**	9.99791		1.009	**1.007**	9.99859		1.094	**1.093**	37
24	9.99711		0.940	**0.937**	9.99792		1.011	**1.009**	9.99860		1.096	**1.094**	36
25	9.99713		0.941	**0.938**	9.99793		1.012	**1.010**	9.99861		1.097	**1.096**	35
26	9.99714		0.942	**0.939**	9.99795		1.013	**1.011**	9.99862		1.099	**1.098**	34
27	9.99716		0.943	**0.940**	9.99796		1.015	**1.012**	9.99863		1.101	**1.099**	33
28	9.99717		0.944	**0.941**	9.99797		1.016	**1.014**	9.99864		1.102	**1.101**	32
29	9.99718		0.945	**0.942**	9.99798		1.017	**1.015**	9.99865		1.104	**1.102**	31
30	9.99720		0.946	**0.943**	9.99800		1.018	**1.016**	9.99866		1.105	**1.104**	30
31	9.99721		0.947	**0.944**	9.99801		1.020	**1.018**	9.99867		1.107	**1.106**	29
32	9.99723		0.948	**0.946**	9.99802		1.021	**1.019**	9.99868		1.109	**1.107**	28
33	9.99724		0.949	**0.947**	9.99803		1.022	**1.020**	9.99869		1.110	**1.109**	27
34	9.99726		0.951	**0.948**	9.99804		1.024	**1.022**	9.99870		1.112	**1.111**	26
35	9.99727		0.952	**0.949**	9.99806		1.025	**1.023**	9.99871		1.113	**1.112**	25
36	9.99728		0.953	**0.950**	9.99807		1.026	**1.024**	9.99872		1.115	**1.114**	24
37	9.99730		0.954	**0.951**	9.99808		1.028	**1.026**	9.99873		1.117	**1.115**	23
38	9.99731		0.955	**0.952**	9.99809		1.029	**1.027**	9.99874		1.118	**1.117**	22
39	9.99733		0.956	**0.954**	9.99810		1.030	**1.029**	9.99875		1.120	**1.119**	21
40	9.99734		0.957	**0.955**	9.99812		1.032	**1.030**	9.99876		1.122	**1.120**	20
41	9.99736		0.959	**0.956**	9.99813		1.033	**1.031**	9.99877		1.123	**1.122**	19
42	9.99737		0.960	**0.957**	9.99814		1.034	**1.033**	9.99878		1.125	**1.124**	18
43	9.99738		0.961	**0.958**	9.99815		1.036	**1.034**	9.99879		1.127	**1.126**	17
44	9.99740		0.962	**0.959**	9.99816		1.037	**1.035**	9.99879		1.128	**1.127**	16
45	9.99741		0.963	**0.961**	9.99817		1.039	**1.037**	9.99880		1.130	**1.129**	15
46	9.99742		0.964	**0.962**	9.99819		1.040	**1.038**	9.99881		1.132	**1.131**	14
47	9.99744		0.965	**0.963**	9.99820		1.041	**1.040**	9.99882		1.134	**1.132**	13
48	9.99745		0.967	**0.964**	9.99821		1.043	**1.041**	9.99883		1.135	**1.134**	12
49	9.99747		0.968	**0.965**	9.99822		1.044	**1.042**	9.99884		1.137	**1.136**	11
50	9.99748		0.969	**0.966**	9.99823		1.046	**1.044**	9.99885		1.139	**1.138**	10
51	9.99749		0.970	**0.968**	9.99824		1.047	**1.045**	9.99886		1.140	**1.139**	9
52	9.99751		0.971	**0.969**	9.99825		1.048	**1.047**	9.99887		1.142	**1.141**	8
53	9.99752		0.972	**0.970**	9.99827		1.050	**1.048**	9.99888		1.144	**1.143**	7
54	9.99753		0.974	**0.971**	9.99828		1.051	**1.049**	9.99889		1.146	**1.145**	6
55	9.99755		0.975	**0.972**	9.99829		1.053	**1.051**	9.99890		1.147	**1.146**	5
56	9.99756		0.976	**0.974**	9.99830		1.054	**1.052**	9.99891		1.149	**1.148**	4
57	9.99757		0.977	**0.975**	9.99831		1.055	**1.054**	9.99891		1.151	**1.150**	3
58	9.99759		0.978	**0.976**	9.99832		1.057	**1.055**	9.99892		1.153	**1.152**	2
59	9.99760		0.980	**0.977**	9.99833		1.058	**1.057**	9.99893		1.155	**1.154**	1
60	9.99761		0.981	**0.978**	9.99834		1.060	**1.058**	9.99894		1.156	**1.155**	0
	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	′
	96° (276° | 96°)				95° (275° | 95°)				94° (274° | 94°)				

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ $l \pm K < 90°$ ノ場合ニ限ル。

第 6 表 IV　高度及方位角計算表　l 土 $K(a, Z)$ 表

$$A_1 + A_2 + A_3 = A_4 \rightarrow a$$
$$Z_1 + Z_2 + Z_3 = Z_4 \rightarrow Z$$

,	86° 266° 86°				87° 267° 87°				88° 268° 88°				89° 269° 89°				
	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	A_4	A_3	Z_3	Z_4	
	L. Sin.		L. Sec.	L.Tan.	L. Sin.		L. Sec.	L.Tan.	L. Sin.		L.Sec.	L.Tan.	L. Sin.		L. Sec.	L.Tan.	
0	9.99894		1.156	1.155	9.99940		1.281	1.281	9.99974		1.457	1.457	9.99993		1.758	1.758	60
1	9.99895		1.158	1.157	9.99941		1.284	1.283	9.99974		1.461	1.461	9.99994		1.765	1.765	59
2	9.99896		1.160	1.159	9.99942		1.286	1.285	9.99974		1.464	1.464	9.99994		1.773	1.773	58
3	9.99897		1.162	1.161	9.99942		1.288	1.288	9.99975		1.468	1.468	9.99994		1.780	1.780	57
4	9.99898		1.164	1.163	9.99943		1.291	1.290	9.99975		1.472	1.472	9.99994		1.788	1.788	56
5	9.99898		1.166	1.165	9.99944		1.293	1.293	9.99976		1.476	1.475	9.99994		1.796	1.796	55
6	9.99899		1.167	1.166	9.99944		1.296	1.295	9.99976		1.479	1.479	9.99995		1.804	1.804	54
7	9.99900		1.169	1.168	9.99945		1.298	1.298	9.99977		1.483	1.483	9.99995		1.812	1.812	53
8	9.99901		1.171	1.170	9.99946		1.301	1.300	9.99977		1.487	1.487	9.99995		1.820	1.820	52
9	9.99902		1.173	1.172	9.99946		1.303	1.303	9.99977		1.491	1.491	9.99995		1.829	1.829	51
10	9.99903		1.175	1.174	9.99947		1.306	1.305	9.99978		1.495	1.495	9.99995		1.837	1.837	50
11	9.99904		1.177	1.176	9.99948		1.309	1.308	9.99978		1.499	1.499	9.99996		1.846	1.846	49
12	9.99904		1.179	1.178	9.99948		1.311	1.311	9.99979		1.503	1.503	9.99996		1.855	1.855	48
13	9.99905		1.181	1.180	9.99949		1.314	1.313	9.99979		1.507	1.507	9.99996		1.864	1.864	47
14	9.99906		1.182	1.182	9.99949		1.316	1.316	9.99979		1.511	1.511	9.99996		1.874	1.873	46
15	9.99907		1.184	1.183	9.99950		1.319	1.318	9.99980		1.515	1.515	9.99996		1.883	1.883	45
16	9.99908		1.186	1.185	9.99951		1.322	1.321	9.99980		1.519	1.519	9.99996		1.893	1.893	44
17	9.99909		1.188	1.187	9.99951		1.324	1.324	9.99981		1.524	1.523	9.99997		1.903	1.903	43
18	9.99909		1.190	1.189	9.99952		1.327	1.326	9.99981		1.528	1.528	9.99997		1.913	1.913	42
19	9.99910		1.192	1.191	9.99952		1.330	1.329	9.99981		1.532	1.532	9.99997		1.924	1.923	41
20	9.99911		1.194	1.193	9.99953		1.332	1.332	9.99982		1.536	1.536	9.99997		1.934	1.934	40
21	9.99912		1.196	1.195	9.99954		1.335	1.335	9.99982		1.541	1.541	9.99997		1.945	1.945	39
22	9.99913		1.198	1.197	9.99954		1.338	1.337	9.99982		1.545	1.545	9.99997		1.956	1.956	38
23	9.99913		1.200	1.199	9.99955		1.341	1.340	9.99983		1.550	1.549	9.99997		1.968	1.968	37
24	9.99914		1.202	1.201	9.99955		1.343	1.343	9.99983		1.554	1.554	9.99998		1.980	1.980	36
25	9.99915		1.204	1.203	9.99956		1.346	1.346	9.99983		1.559	1.558	9.99998		1.992	1.992	35
26	9.99916		1.206	1.205	9.99956		1.349	1.348	9.99984		1.563	1.563	9.99998		2.005	2.005	34
27	9.99917		1.208	1.207	9.99957		1.352	1.351	9.99984		1.568	1.568	9.99998		2.018	2.018	33
28	9.99917		1.210	1.209	9.99958		1.355	1.354	9.99984		1.573	1.572	9.99998		2.031	2.031	32
29	9.99918		1.212	1.211	9.99958		1.357	1.357	9.99985		1.577	1.577	9.99998		2.045	2.045	31
30	9.99919		1.214	1.214	9.99959		1.360	1.360	9.99985		1.582	1.582	9.99998		2.059	2.059	30
31	9.99920		1.216	1.216	9.99959		1.363	1.363	9.99985		1.587	1.587	9.99998		2.074	2.074	29
32	9.99920		1.218	1.218	9.99960		1.366	1.366	9.99986		1.592	1.592	9.99999		2.089	2.089	28
33	9.99921		1.221	1.220	9.99960		1.369	1.369	9.99986		1.597	1.597	9.99999		2.105	2.105	27
34	9.99922		1.223	1.222	9.99961		1.372	1.372	9.99986		1.602	1.602	9.99999		2.121	2.121	26
35	9.99923		1.225	1.224	9.99961		1.375	1.375	9.99987		1.607	1.607	9.99999		2.138	2.138	25
36	9.99923		1.227	1.226	9.99962		1.378	1.378	9.99987		1.612	1.612	9.99999		2.156	2.156	24
37	9.99924		1.229	1.228	9.99962		1.381	1.381	9.99987		1.617	1.617	9.99999		2.175	2.175	23
38	9.99925		1.231	1.230	9.99963		1.384	1.384	9.99988		1.623	1.622	9.99999		2.194	2.194	22
39	9.99926		1.233	1.233	9.99963		1.387	1.387	9.99988		1.628	1.628	9.99999		2.214	2.214	21
40	9.99926		1.235	1.235	9.99964		1.390	1.390	9.99988		1.633	1.633	9.99999		2.235	2.235	20
41	9.99927		1.238	1.237	9.99964		1.393	1.393	9.99989		1.639	1.639	9.99999		2.258	2.258	19
42	9.99928		1.240	1.239	9.99965		1.397	1.396	9.99989		1.644	1.644	9.99999		2.281	2.281	18
43	9.99929		1.242	1.241	9.99966		1.400	1.399	9.99989		1.650	1.650	9.99999		2.306	2.306	17
44	9.99929		1.244	1.244	9.99966		1.403	1.403	9.99989		1.655	1.655	0.00000		2.332	2.332	16
45	9.99930		1.246	1.246	9.99967		1.406	1.406	9.99990		1.661	1.661	0.00000		2.360	2.360	15
46	9.99931		1.249	1.248	9.99967		1.409	1.409	9.99990		1.667	1.667	0.00000		2.390	2.390	14
47	9.99932		1.251	1.250	9.99967		1.413	1.412	9.99990		1.673	1.673	0.00000		2.422	2.422	13
48	9.99932		1.253	1.253	9.99968		1.416	1.415	9.99990		1.679	1.679	0.00000		2.457	2.457	12
49	9.99933		1.255	1.255	9.99968		1.419	1.419	9.99991		1.685	1.685	0.00000		2.495	2.495	11
50	9.99934		1.258	1.257	9.99969		1.422	1.422	9.99991		1.691	1.691	0.00000		2.536	2.536	10
51	9.99934		1.260	1.259	9.99969		1.426	1.425	9.99991		1.697	1.697	0.00000		2.582	2.582	9
52	9.99935		1.262	1.262	9.99970		1.429	1.429	9.99992		1.704	1.704	0.00000		2.633	2.633	8
53	9.99936		1.265	1.264	9.99970		1.433	1.432	9.99992		1.710	1.710	0.00000		2.691	2.691	7
54	9.99936		1.267	1.266	9.99971		1.436	1.436	9.99992		1.717	1.717	0.00000		2.758	2.758	6
55	9.99937		1.269	1.269	9.99971		1.439	1.439	9.99992		1.723	1.723	0.00000		2.837	2.837	5
56	9.99938		1.272	1.271	9.99972		1.443	1.443	9.99992		1.730	1.730	0.00000		2.934	2.934	4
57	9.99938		1.274	1.273	9.99972		1.446	1.446	9.99993		1.737	1.737	0.00000		3.059	3.059	3
58	9.99939		1.276	1.276	9.99973		1.450	1.450	9.99993		1.744	1.744	0.00000		3.235	3.235	2
59	9.99940		1.279	1.278	9.99973		1.454	1.453	9.99993		1.751	1.751	0.00000		3.536	3.536	1
60	9.99940		1.281	1.281	9.99974		1.457	1.457	9.99993		1.758	1.758	0.00000		$+\infty$*	$+\infty$	0
,	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	A_3		Z_3	Z_4	
	93° 273° 93°				92° 272° 92°				91° 271° 91°				90° 270° 90°				

* $l + K = 90°$ ナルトキ $\begin{cases} A_4 = A_1 + A_2 \\ Z = 90°, 270° \end{cases}$

Z ガ東西圏ヨリモ緯度ト同名ノ極ノ側ニアルハ l, d 同名ニシテ l 土 K<90° ノ場合ニ限ル。

第 7 表　時角 1ᵐ ノ變化ニ對スル高度ノ改正

緯度 Lat.	方位角 Az. 0° 180°	5° 175°	10° 170°	15° 165°	20° 160°	25° 155°	30° 150°	35° 145°	40° 140°	45° 135°	50° 130°	55° 125°	60° 120°	65° 115°	70° 110°	75° 105°	80° 100°	85° 95°	90° 90°	緯度 Lat.
°	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	°
0	0.0	1.3	2.6	3.9	5.1	6.3	7.5	8.6	9.6	10.6	11.5	12.3	13.0	13.6	14.1	14.5	14.8	14.9	15.0	0
5	0.0	1.3	2.6	3.9	5.1	6.3	7.5	8.6	9.6	10.6	11.4	12.2	12.9	13.5	14.0	14.4	14.7	14.9	14.9	5
10	0.0	1.3	2.6	3.8	5.1	6.2	7.4	8.5	9.5	10.4	11.3	12.1	12.8	13.4	13.9	14.3	14.5	14.7	14.8	10
15	0.0	1.3	2.5	3.8	5.0	6.1	7.2	8.3	9.3	10.2	11.1	11.9	12.5	13.1	13.6	14.0	14.3	14.4	14.5	15
20	0.0	1.2	2.4	3.6	4.8	6.0	7.1	8.1	9.1	10.0	10.8	11.6	12.2	12.8	13.2	13.6	13.9	14.0	14.1	20
25	0.0	1.2	2.4	3.5	4.6	5.7	6.8	7.8	8.7	9.6	10.4	11.1	11.8	12.3	12.8	13.1	13.4	13.5	13.6	25
30	0.0	1.1	2.3	3.4	4.4	5.5	6.5	7.5	8.3	9.2	10.0	10.6	11.2	11.8	12.2	12.5	12.8	12.9	13.0	30
35	0.0	1.1	2.1	3.2	4.2	5.2	6.1	7.0	7.9	8.7	9.4	10.1	10.6	11.1	11.5	11.9	12.1	12.2	12.3	35
40	0.0	1.0	2.0	3.0	3.9	4.9	5.7	6.6	7.4	8.1	8.8	9.4	10.0	10.4	10.8	11.1	11.3	11.4	11.5	40
45	0.0	0.9	1.8	2.7	3.6	4.5	5.3	6.1	6.8	7.5	8.1	8.7	9.2	9.6	10.0	10.2	10.4	10.6	10.6	45
50	0.0	0.8	1.7	2.5	3.3	4.1	4.8	5.5	6.2	6.8	7.4	7.9	8.3	8.7	9.1	9.3	9.5	9.6	9.6	50
55	0.0	0.7	1.5	2.2	2.9	3.6	4.3	4.9	5.5	6.1	6.6	7.0	7.4	7.8	8.1	8.3	8.5	8.6	8.6	55
60	0.0	0.7	1.3	1.9	2.6	3.2	3.8	4.3	4.8	5.3	5.7	6.1	6.5	6.8	7.0	7.2	7.4	7.5	7.5	60
65	0.0	0.6	1.1	1.6	2.2	2.7	3.2	3.6	4.1	4.5	4.9	5.2	5.5	5.7	6.0	6.1	6.2	6.3	6.3	65
70	0.0	0.4	0.9	1.3	1.8	2.2	2.6	2.9	3.3	3.6	3.9	4.2	4.4	4.6	4.8	5.0	5.1	5.1	5.1	70
緯度 Lat.	180° 360°	185° 355°	190° 350°	195° 345°	200° 340°	205° 335°	210° 330°	215° 325°	220° 320°	225° 315°	230° 310°	235° 305°	240° 300°	245° 295°	250° 290°	255° 285°	260° 280°	265° 275°	270° 270°	緯度 Lat.
	方位角 Az.																			

注意

1. {上方見出シ(東方方位角)ニ對シテハ時角ノ增加ニ伴ヒ高度增加ス / 下方 〃 (西方方位角) 〃 減少ス}
2. 緯度ノ南北ニ關セズ
3. 時角 x^m ノ變化ニ對スル高度ノ改正量　$\Delta a = x \times$ 表値
4. 時角ノ誤差大ナルトキハ不正確ナリ

第 7 表，第 8 表 使用例

$h = 35° 29'.4$,　$d = 38° 43'.4$ N.,　$l = 34° 45'.0$ N.

$a_c = 61° 27'.7$,　$Z = 288°.6$,　$\Delta h = -5^m$ (遲過ギ)

第 7 表　Lat. 34°.8,　Az. 288°.6　表値 $= +11'.6$ (高度過小)

∴ 改正量 $\Delta a = 5 \times 11.6 = 58'.0$ (+)

第 8 表　Lat. 34°.8 N.,　Az. 288°.6,　Alt. 61°.5

$A = -0'.7$　$B = +0'.6$　表値 $= A + B = -0'.1$

∴ 改正量 $\Delta Z = 58 \times 0'.1 = 5'.8 = 0°.1$ (−)

改正高度　$61° 27'.7 + 58'.0 = 62° 25'.7$

改正方位角　$288°.6 - 0°.1 = 288°.5$

第 8 表 I　高度 1′ ノ變化ニ對スル方位角ノ改正

說明

1. 第 8 表 II (次ノ頁) ヨリ A, B ノ値ヲ各符號ニ從ヒテ加減ス
   表値 $= A + B$
2. 表値ハ高度差 1′ ニ對スル改正ナルヲ以テ之ニ第 7 表ヨリ求メタル高度ノ改正量 Δa ヲ乘ズレバ方位角ノ改正量 ΔZ ヲ得ベシ
   $\Delta Z = \Delta a \times$ 表値
3. 改正量 ΔZ ニ附スベキ符號ハ次ノ如シ

$A+B$	(+) ナルトキ	(−) ナルトキ
高度過小ナラバ	(+)	(−)
高度過大ナラバ	(−)	(+)

第 8 表 II　高度 1′ノ變化ニ對スル方位角ノ改正

A　上方見出シ(東方方位角)ノトキ　北緯ナラバ(+)、南緯ナラバ(−)

緯度 Lat.	方位角 Az. 0°	2°	4°	6°	8°	10°	15°	20°	25°	30°	40°	50°	60°	70°	90°	緯度 Lat.
	180°	178°	176°	174°	172°	170°	165°	160°	155°	150°	140°	130°	120°	110°	90°	
°		′	′	′	′	′	′	′	′	′	′	′	′	′	′	°
0	ind.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
5	∞	2.5	1.3	0.8	0.6	0.5	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	5
10	∞	5.1	2.5	1.7	1.3	1.0	0.7	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	10
12	∞	6.1	3.0	2.0	1.5	1.2	0.8	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.2	12
14	∞	7.1	3.6	2.4	1.8	1.4	1.0	0.7	0.6	0.5	0.4	0.3	0.3	0.3	0.2	14
16	∞	8.2	4.1	2.7	2.1	1.7	1.1	0.8	0.7	0.6	0.4	0.4	0.3	0.3	0.3	16
18	∞	9.3	4.7	3.1	2.3	1.9	1.3	1.0	0.8	0.7	0.5	0.4	0.4	0.3	0.3	18
20	∞	10.4	5.2	3.5	2.6	2.1	1.4	1.1	0.9	0.7	0.6	0.5	0.4	0.4	0.4	20
22	∞	11.6	5.8	3.9	2.9	2.3	1.6	1.2	1.0	0.8	0.6	0.5	0.5	0.4	0.4	22
24	∞	12.8	6.4	4.3	3.2	2.6	1.7	1.3	1.1	0.9	0.7	0.6	0.5	0.5	0.4	24
26	∞	14.0	7.0	4.7	3.5	2.8	1.9	1.4	1.2	1.0	0.8	0.6	0.6	0.5	0.5	26
28	∞	15.2	7.6	5.1	3.8	3.1	2.1	1.6	1.3	1.1	0.8	0.7	0.6	0.6	0.5	28
30	∞	16.5	8.3	5.5	4.1	3.3	2.2	1.7	1.4	1.2	0.9	0.8	0.7	0.6	0.6	30
32	∞	17.9	9.0	6.0	4.5	3.6	2.4	1.8	1.5	1.3	1.0	0.8	0.7	0.7	0.6	32
34	∞	19.3	9.7	6.5	4.8	3.9	2.6	2.0	1.6	1.3	1.0	0.9	0.8	0.7	0.7	34
36	∞	20.8	10.4	7.0	5.2	4.2	2.8	2.1	1.7	1.5	1.1	0.9	0.8	0.8	0.7	36
38	∞	22.4	11.2	7.5	5.6	4.5	3.0	2.3	1.8	1.6	1.2	1.0	0.9	0.8	0.8	38
40	∞	24.0	12.0	8.0	6.0	4.8	3.2	2.5	2.0	1.7	1.3	1.1	1.0	0.9	0.8	40
42	∞	25.8	12.9	8.6	6.5	5.2	3.5	2.6	2.1	1.8	1.4	1.2	1.0	1.0	0.9	42
44	∞	27.7	13.8	9.2	6.9	5.6	3.7	2.8	2.3	1.9	1.5	1.3	1.1	1.0	1.0	44
46	∞	29.7	14.9	9.9	7.4	6.0	4.0	3.0	2.5	2.1	1.6	1.4	1.2	1.1	1.0	46
48	∞	31.8	15.9	10.6	8.0	6.4	4.3	3.2	2.6	2.2	1.7	1.5	1.3	1.2	1.1	48
50	∞	34.2	17.1	11.4	8.6	6.9	4.6	3.5	2.8	2.4	1.9	1.6	1.4	1.3	1.2	50
52	∞	36.7	18.4	12.3	9.2	7.4	4.9	3.7	3.0	2.6	2.0	1.7	1.5	1.4	1.3	52
54	∞	39.4	19.7	13.2	9.9	7.9	5.3	4.0	3.3	2.8	2.1	1.8	1.6	1.5	1.4	54
56	∞	42.5	21.3	14.2	10.7	8.5	5.7	4.3	3.5	3.0	2.3	1.9	1.7	1.6	1.5	56
58	∞	45.9	22.9	15.3	11.5	9.2	6.2	4.7	3.8	3.2	2.5	2.1	1.8	1.7	1.6	58
60	∞	49.6	24.8	16.6	12.5	10.0	6.7	5.1	4.1	3.5	2.7	2.3	2.0	1.8	1.7	60
65	∞	61.5	30.7	20.5	15.4	12.4	8.3	6.3	5.1	4.3	3.3	2.8	2.5	2.3	2.1	65
70	∞	78.7	39.4	26.3	19.7	15.8	10.6	8.0	6.5	5.5	4.3	3.6	3.2	2.9	2.7	70
緯度 Lat.	180°	182°	184°	186°	188°	190°	195°	200°	205°	210°	220°	230°	240°	250°	270°	緯度 Lat.
	360°	358°	356°	354°	352°	350°	345°	340°	335°	330°	320°	310°	300°	290°	270°	
	方位角 Az.															

A　下方見出シ(西方方位角)ノトキ　北緯ナラバ(−)、南緯ナラバ(+)

B　上方見出シ(方位角I, III象限)ノトキ(−)

高度 Alt.	方位角 Az. 0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	60°	70°	80°	90°	高度 Alt.
	180°	185°	190°	195°	200°	205°	210°	215°	220°	225°	230°	240°	250°	260°	270°	
°		′	′	′	′	′	′	′	′	′	′	′	′	′	′	°
0	ind.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
5	∞	1.0	0.5	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	5
10	∞	2.0	1.0	0.7	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.0	0.0	10
15	∞	3.1	1.5	1.0	0.7	0.6	0.5	0.4	0.3	0.3	0.2	0.2	0.1	0.0	0.0	15
20	∞	4.2	2.1	1.4	1.0	0.8	0.6	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.0	20
25	∞	5.3	2.6	1.7	1.3	1.0	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	25
30	∞	6.6	3.3	2.2	1.6	1.2	1.0	0.8	0.7	0.6	0.5	0.3	0.2	0.1	0.0	30
35	∞	8.0	4.0	2.6	1.9	1.5	1.2	1.0	0.8	0.7	0.6	0.4	0.3	0.1	0.0	35
40	∞	9.6	4.8	3.1	2.3	1.8	1.5	1.2	1.0	0.8	0.7	0.5	0.3	0.1	0.0	40
45	∞	11.4	5.7	3.7	2.7	2.1	1.7	1.4	1.2	1.0	0.8	0.6	0.4	0.2	0.0	45
50	∞	13.6	6.8	4.4	3.3	2.6	2.1	1.7	1.4	1.2	1.0	0.7	0.4	0.2	0.0	50
55	∞	16.3	8.1	5.3	3.9	3.1	2.5	2.0	1.7	1.4	1.2	0.8	0.5	0.3	0.0	55
60	∞	19.8	9.8	6.5	4.8	3.7	3.0	2.5	2.1	1.7	1.5	1.0	0.6	0.3	0.0	60
65	∞	24.5	12.2	8.0	5.9	4.6	3.7	3.1	2.6	2.1	1.8	1.2	0.8	0.4	0.0	65
70	∞	31.4	15.6	10.3	7.5	5.9	4.8	3.9	3.3	2.7	2.3	1.6	1.0	0.5	0.0	70
75	∞	42.7	21.2	13.9	10.3	8.0	6.5	5.3	4.4	3.7	3.1	2.2	1.4	0.7	0.0	75
80	∞	64.8	32.2	21.2	15.6	12.2	9.8	8.1	6.8	5.7	4.8	3.3	2.1	1.0	0.0	80
85	∞	130.6	64.8	42.7	31.4	24.5	19.8	16.3	13.6	11.4	9.6	6.6	4.2	2.0	0.0	85
90	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	ind.	90
高度 Alt.	180°	175°	170°	165°	160°	155°	150°	145°	140°	135°	130°	120°	110°	100°	90°	高度 Alt.
	360°	355°	350°	345°	340°	335°	330°	325°	320°	315°	310°	300°	290°	280°	270°	
	方位角 Az.															

B　下方見出シ(方位角 II, IV 象限)ノトキ(+)

符號ニ關シテハ前頁參照

附　錄

Appendix

Z 表

Z		K_1	H_1	Z		K_1	H_1
°	°	L. Sec.	L.Tan.	°	°	L.Sec.	L.Tan.
0	180	0.000	−∞	45	135	0.151	0.000
1	179	0.000	8.242	46	134	0.158	0.015
2	178	0.000	8.543	47	133	0.166	0.030
3	177	0.001	8.719	48	132	0.174	0.046
4	176	0.001	8.845	49	131	0.183	0.061
5	175	0.002	8.942	50	130	0.192	0.076
6	174	0.002	9.022	51	129	0.201	0.092
7	173	0.003	9.089	52	128	0.211	0.107
8	172	0.004	9.148	53	127	0.221	0.123
9	171	0.005	9.200	54	126	0.231	0.139
10	170	0.007	9.246	55	125	0.241	0.155
11	169	0.008	9.289	56	124	0.252	0.171
12	168	0.010	9.327	57	123	0.264	0.187
13	167	0.011	9.363	58	122	0.276	0.204
14	166	0.013	9.397	59	121	0.288	0.221
15	165	0.015	9.428	60	120	0.301	0.239
16	164	0.017	9.457	61	119	0.314	0.256
17	163	0.019	9.485	62	118	0.328	0.274
18	162	0.022	9.512	63	117	0.343	0.293
19	161	0.024	9.537	64	116	0.358	0.312
20	160	0.027	9.561	65	115	0.374	0.331
21	159	0.030	9.584	66	114	0.391	0.351
22	158	0.033	9.606	67	113	0.408	0.372
23	157	0.036	9.628	68	112	0.426	0.394
24	156	0.039	9.649	69	111	0.446	0.416
25	155	0.043	9.669	70	110	0.466	0.439
26	154	0.046	9.688	71	109	0.487	0.463
27	153	0.050	9.707	72	108	0.510	0.488
28	152	0.054	9.726	73	107	0.534	0.515
29	151	0.058	9.744	74	106	0.560	0.543
30	150	0.062	9.761	75	105	0.587	0.572
31	149	0.067	9.779	76	104	0.616	0.603
32	148	0.072	9.796	77	103	0.648	0.637
33	147	0.076	9.813	78	102	0.682	0.673
34	146	0.081	9.829	79	101	0.719	0.711
35	145	0.087	9.845	80	100	0.760	0.754
36	144	0.092	9.861	81	99	0.806	0.800
37	143	0.098	9.877	82	98	0.856	0.852
38	142	0.103	9.893	83	97	0.914	0.911
39	141	0.109	9.908	84	96	0.981	0.978
40	140	0.116	9.924	85	95	1.060	1.058
41	139	0.122	9.939	86	94	1.156	1.155
42	138	0.129	9.954	87	93	1.281	1.281
43	137	0.136	9.970	88	92	1.457	1.457
44	136	0.143	9.985	89	91	1.758	1.758
45	135	0.151	0.000	90	90	+∞	+∞

a 表

a	K_2	D_1	a	K_2	D_1
°	L.Tan.	L.Sin.	°	L.Tan.	L.Sin.
0	−∞	−∞	45	0.000	9.849
1	8.242	8.242	46	0.015	9.857
2	8.543	8.543	47	0.030	9.864
3	8.719	8.719	48	0.046	9.871
4	8.845	8.844	49	0.061	9.878
5	8.942	8.940	50	0.076	9.884
6	9.022	9.019	51	0.092	9.891
7	9.089	9.086	52	0.107	9.897
8	9.148	9.144	53	0.123	9.902
9	9.200	9.194	54	0.139	9.908
10	9.246	9.240	55	0.155	9.913
11	9.289	9.281	56	0.171	9.919
12	9.327	9.318	57	0.187	9.924
13	9.363	9.352	58	0.204	9.928
14	9.397	9.384	59	0.221	9.933
15	9.428	9.413	60	0.239	9.938
16	9.457	9.440	61	0.256	9.942
17	9.485	9.466	62	0.274	9.946
18	9.512	9.490	63	0.293	9.950
19	9.537	9.513	64	0.312	9.954
20	9.561	9.534	65	0.331	9.957
21	9.584	9.554	66	0.351	9.961
22	9.606	9.574	67	0.372	9.964
23	9.628	9.592	68	0.394	9.967
24	9.649	9.609	69	0.416	9.970
25	9.669	9.626	70	0.439	9.973
26	9.688	9.642	71	0.463	9.976
27	9.707	9.657	72	0.488	9.978
28	9.726	9.672	73	0.515	9.981
29	9.744	9.686	74	0.543	9.983
30	9.761	9.699	75	0.572	9.985
31	9.779	9.712	76	0.603	9.987
32	9.796	9.724	77	0.637	9.989
33	9.813	9.736	78	0.673	9.990
34	9.829	9.748	79	0.711	9.992
35	9.845	9.759	80	0.754	9.993
36	9.861	9.769	81	0.800	9.995
37	9.877	9.779	82	0.852	9.996
38	9.893	9.789	83	0.911	9.997
39	9.908	9.799	84	0.978	9.998
40	9.924	9.808	85	1.058	9.998
41	9.939	9.817	86	1.155	9.999
42	9.954	9.826	87	1.281	9.999
43	9.970	9.834	88	1.457	0.000
44	9.985	9.842	89	1.758	0.000
45	0.000	9.849	90	+∞	0.000

方位角(Z)ノ測リ方

Z ハ北ヲ 0° トシ、東西ニ各 180° 迄測ルモノトス。

計算ノ手順

$$
\begin{array}{ccccc}
Z & a & K & l \pm K & \\
\downarrow & \downarrow & \uparrow & \downarrow & \\
K_1 & + K_2 & = K_3 & & \\
\vdots & \vdots & \vdots & \vdots & \\
 & D_1 & + D_2 & + D_3 & = D_4 \rightarrow d \\
 & & \vdots & \vdots & \\
H_1 & & + H_2 & + H_3 & = H_4 \rightarrow h
\end{array}
$$

K 表

K_3	K	D_2	H_2	K_3	K	D_2	H_2
L.Cot.	°	L.Sec.	L.Sin.	L.Cot.	°	L.Sec.	L.Sin.
+∞	0	0.000	−∞	0.000	45	0.151	9.849
1.758	1	0.000	8.242	9.985	46	0.158	9.857
1.457	2	0.000	8.543	9.970	47	0.166	9.864
1.281	3	0.001	8.719	9.954	48	0.174	9.871
1.155	4	0.001	8.844	9.939	49	0.183	9.878
1.058	5	0.002	8.940	9.924	50	0.192	9.884
0.978	6	0.002	9.019	9.908	51	0.201	9.891
0.911	7	0.003	9.086	9.893	52	0.211	9.897
0.852	8	0.004	9.144	9.877	53	0.221	9.902
0.800	9	0.005	9.194	9.861	54	0.231	9.908
0.754	10	0.007	9.240	9.845	55	0.241	9.913
0.711	11	0.008	9.281	9.829	56	0.252	9.919
0.673	12	0.010	9.318	9.813	57	0.264	9.924
0.637	13	0.011	9.352	9.796	58	0.276	9.928
0.603	14	0.013	9.384	9.779	59	0.288	9.933
0.572	15	0.015	9.413	9.761	60	0.301	9.938
0.543	16	0.017	9.440	9.744	61	0.314	9.942
0.515	17	0.019	9.466	9.726	62	0.328	9.946
0.488	18	0.022	9.490	9.707	63	0.343	9.950
0.463	19	0.024	9.513	9.688	64	0.358	9.954
0.439	20	0.027	9.534	9.669	65	0.374	9.957
0.416	21	0.030	9.554	9.649	66	0.391	9.961
0.394	22	0.033	9.574	9.628	67	0.408	9.964
0.372	23	0.036	9.592	9.606	68	0.426	9.967
0.351	24	0.039	9.609	9.584	69	0.446	9.970
0.331	25	0.043	9.626	9.561	70	0.466	9.973
0.312	26	0.046	9.642	9.537	71	0.487	9.976
0.293	27	0.050	9.657	9.512	72	0.510	9.978
0.274	28	0.054	9.672	9.485	73	0.534	9.981
0.256	29	0.058	9.686	9.457	74	0.560	9.983
0.239	30	0.062	9.699	9.428	75	0.587	9.985
0.221	31	0.067	9.712	9.397	76	0.616	9.987
0.204	32	0.072	9.724	9.363	77	0.648	9.989
0.187	33	0.076	9.736	9.327	78	0.682	9.990
0.171	34	0.081	9.748	9.289	79	0.719	9.992
0.155	35	0.087	9.759	9.246	80	0.760	9.993
0.139	36	0.092	9.769	9.200	81	0.806	9.995
0.123	37	0.098	9.779	9.148	82	0.856	9.996
0.107	38	0.103	9.789	9.089	83	0.914	9.997
0.092	39	0.109	9.799	9.022	84	0.981	9.998
0.076	40	0.116	9.808	8.942	85	1.060	9.998
0.061	41	0.122	9.817	8.845	86	1.156	9.999
0.046	42	0.129	9.826	8.719	87	1.281	9.999
0.030	43	0.136	9.834	8.543	88	1.457	0.000
0.015	44	0.143	9.842	8.242	89	1.758	0.000
0.000	45	0.151	9.849	−∞	90	+∞	0.000

$l \pm K$ 表

$l \pm K$	D_3	H_3	$l \pm K$	D_3	H_3
° °	L.Sin.	L.Sec.	° °	L.Sin.	L.Sec.
0 180	−∞	0.000	45 135	9.849	0.151
1 179	8.242	0.000	46 134	9.857	0.158
2 178	8.543	0.000	47 133	9.864	0.166
3 177	8.719	0.001	48 132	9.871	0.174
4 176	8.844	0.001	49 131	9.878	0.183
5 175	8.940	0.002	50 130	9.884	0.192
6 174	9.019	0.002	51 129	9.891	0.201
7 173	9.086	0.003	52 128	9.897	0.211
8 172	9.144	0.004	53 127	9.902	0.221
9 171	9.194	0.005	54 126	9.908	0.231
10 170	9.240	0.007	55 125	9.913	0.241
11 169	9.281	0.008	56 124	9.919	0.252
12 168	9.318	0.010	57 123	9.924	0.264
13 167	9.352	0.011	58 122	9.928	0.276
14 166	9.384	0.013	59 121	9.933	0.288
15 165	9.413	0.015	60 120	9.938	0.301
16 164	9.440	0.017	61 119	9.942	0.314
17 163	9.466	0.019	62 118	9.946	0.328
18 162	9.490	0.022	63 117	9.950	0.343
19 161	9.513	0.024	64 116	9.954	0.358
20 160	9.534	0.027	65 115	9.957	0.374
21 159	9.554	0.030	66 114	9.961	0.391
22 158	9.574	0.033	67 113	9.964	0.408
23 157	9.592	0.036	68 112	9.967	0.426
24 156	9.609	0.039	69 111	9.970	0.446
25 155	9.626	0.043	70 110	9.973	0.466
26 154	9.642	0.046	71 109	9.976	0.487
27 153	9.657	0.050	72 108	9.978	0.510
28 152	9.672	0.054	73 107	9.981	0.534
29 151	9.686	0.058	74 106	9.983	0.560
30 150	9.699	0.062	75 105	9.985	0.587
31 149	9.712	0.067	76 104	9.987	0.616
32 148	9.724	0.072	77 103	9.989	0.648
33 147	9.736	0.076	78 102	9.990	0.682
34 146	9.748	0.081	79 101	9.992	0.719
35 145	9.759	0.087	80 100	9.993	0.760
36 144	9.769	0.092	81 99	9.995	0.806
37 143	9.779	0.098	82 98	9.996	0.856
38 142	9.789	0.103	83 97	9.997	0.914
39 141	9.799	0.109	84 96	9.998	0.981
40 140	9.808	0.116	85 95	9.998	1.060
41 139	9.817	0.122	86 94	9.999	1.156
42 138	9.826	0.129	87 93	9.999	1.281
43 137	9.834	0.136	88 92	0.000	1.457
44 136	9.842	0.143	89 91	0.000	1.758
45 135	9.849	0.151	90 90	0.000	+∞

補助角(K)ノ符號

Lat.	Z	K
N.	0°− 90° 90 −180	+ ～
S.	0 − 90 90 −180	～ +

緯度(l)ノ符號

Lat. ノ N., S. = 拘ラズ
常 = + トス。

d, h 表

D_4	d	D_4	d	H_4	h				H_4	h			
L. Sin.	°	L. Sin.	°	L. Tan.	h m	°	h m	°	L. Tan.	h m	°	h m	°
−∞	0	9.849	45	−∞	0 0	0	12 0	180	0.000	3 0	45	9 0	135
8.242	1	9.857	46	8.242	0 4	1	11 56	179	0.015	3 4	46	8 56	134
8.543	2	9.864	47	8.543	0 8	2	11 52	178	0.030	3 8	47	8 52	133
8.719	3	9.871	48	8.719	0 12	3	11 48	177	0.046	3 12	48	8 48	132
8.844	4	9.878	49	8.845	0 16	4	11 44	176	0.061	3 16	49	8 44	131
8.940	5	9.884	50	8.942	0 20	5	11 40	175	0.076	3 20	50	8 40	130
9.019	6	9.891	51	9.022	0 24	6	11 36	174	0.092	3 24	51	8 36	129
9.086	7	9.897	52	9.089	0 28	7	11 32	173	0 107	3 28	52	8 32	128
9.144	8	9.902	53	9.148	0 32	8	11 28	172	0.123	3 32	53	8 28	127
9.194	9	9.908	54	9.200	0 36	9	11 24	171	0.139	3 36	54	8 24	126
9.240	10	9.913	55	9.246	0 40	10	11 20	170	0.155	3 40	55	8 20	125
9.281	11	9.919	56	9.289	0 44	11	11 16	169	0.171	3 44	56	8 16	124
9.318	12	9.924	57	9.327	0 48	12	11 12	168	0.187	3 48	57	8 12	123
9.352	13	9.928	58	9.363	0 52	13	11 8	167	0.204	3 52	58	8 8	122
9.384	14	9.933	59	9.397	0 56	14	11 4	166	0.221	3 56	59	8 4	121
9.413	15	9.938	60	9.428	1 0	15	11 0	165	0.239	4 0	60	8 0	120
9.440	16	9.942	61	9.457	1 4	16	10 56	164	0.256	4 4	61	7 56	119
9.466	17	9.946	62	9.485	1 8	17	10 52	163	0.274	4 8	62	7 52	118
9.490	18	9.950	63	9.512	1 12	18	10 48	162	0.293	4 12	63	7 48	117
9.513	19	9.954	64	9.537	1 16	19	10 44	161	0.312	4 16	64	7 44	116
9.534	20	9.957	65	9.561	1 20	20	10 40	160	0.331	4 20	65	7 40	115
9.554	21	9.961	66	9.584	1 24	21	10 36	159	0.351	4 24	66	7 36	114
9.574	22	9.964	67	9.606	1 28	22	10 32	158	0.372	4 28	67	7 32	113
9.592	23	9.967	68	9.628	1 32	23	10 28	157	0.394	4 32	68	7 28	112
9.609	24	9.970	69	9.649	1 36	24	10 24	156	0.416	4 36	69	7 24	111
9.626	25	9.973	70	9.669	1 40	25	10 20	155	0.439	4 40	70	7 20	110
9.642	26	9.976	71	9.688	1 44	26	10 16	154	0.463	4 44	71	7 16	109
9.657	27	9.978	72	9.707	1 48	27	10 12	153	0.488	4 48	72	7 12	108
9.672	28	9.981	73	9.726	1 52	28	10 8	152	0.515	4 52	73	7 8	107
9.686	29	9.983	74	9.744	1 56	29	10 4	151	0.543	4 56	74	7 4	106
9.699	30	9.985	75	9.761	2 0	30	10 0	150	0.572	5 0	75	7 0	105
9.712	31	9.987	76	9.779	2 4	31	9 56	149	0.603	5 4	76	6 56	104
9.724	32	9.989	77	9.796	2 8	32	9 52	148	0.637	5 8	77	6 52	103
9.736	33	9.990	78	9.813	2 12	33	9 48	147	0.673	5 12	78	6 48	102
9.748	34	9.992	79	9.829	2 16	34	9 44	146	0.711	5 16	79	6 44	101
9.759	35	9.993	80	9.845	2 20	35	9 40	145	0.754	5 20	80	6 40	100
9.769	36	9.995	81	9.861	2 24	36	9 36	144	0.800	5 24	81	6 36	99
9.779	37	9.996	82	9.877	2 28	37	9 32	143	0.852	5 28	82	6 32	98
9.789	38	9.997	83	9.893	2 32	38	9 28	142	0.911	5 32	83	6 28	97
9.799	39	9.998	84	9.908	2 36	39	9 24	141	0.978	5 36	84	6 24	96
9.808	40	9.998	85	9.924	2 40	40	9 20	140	1.058	5 40	85	6 20	95
9.817	41	9.999	86	9.939	2 44	41	9 16	139	1.155	5 44	86	6 16	94
9.826	42	9.999	87	9.954	2 48	42	9 12	138	1.281	5 48	87	6 12	93
9.834	43	0.000	88	9.970	2 52	43	9 8	137	1.457	5 52	88	6 8	92
9.842	44	0.000	89	9.985	2 56	44	9 4	136	1.758	5 56	89	6 4	91
9.849	45	0.000	90	0.000	3 0	45	9 0	135	+∞	6 0	90	6 0	90

赤緯 (Dec.) 及赤經 (R.A.) ノ判別

1. Dec. ノ N., S.	$l \pm K > 0$ ナルトキ Lat. ト同名 $l \pm K < 0$ 〃 〃 異名
2. H.A. ノ E., W.	h ハ子午線ノ東西 = 0^h ヨリ 12^h 迄測ル l, d 同名 = シテ $l + K > 90°$ ナルトキ = 限リ $h > 6^h$
3. R.A. ノ算式	Sid.T. = G.M.T. + R ± Long. in T. +…E. Long., −…W. Long. R.A. = Sid.T. ± h +……子午線ノ E. −…… 〃 W.

h ハ時分ニテ求ムベシ。h 欄ノ弧度ハ經度ヲ時分ニ換算スル際ノ使用ニ供ス。

用法 i Lat.(l) ト Dec.(d) トノ和及差ヲ計算シ。

lトd トガ同(異)名ナラバ和(差)ヲ S, 差(和)ヲ Dト名ク。

ii H.A.(h) ヲ時分秒ニテ表ハス。

iii S 表、D 表 及 h 表ヨリ表値ヲ取出シ、次ノ如ク α, β ヲ求ム。

$A_1+A_2+A_3=A_4\rightarrow\alpha$, $B_1+B_2+B_3=B_4\rightarrow\beta$ 但シ $A_3=B_3$

結果 $l>d$ ナラバ l, d ノ同、異名ニ拘ラズ $Z=\alpha+\beta$

$l<d$ ニシテ l, d { 同名ナルトキ $=\alpha-\beta$ / 異名ナルトキ $=180°-(\alpha-\beta)$

但シ Z ハ北緯(南緯)ノ地ニテハ北(南)ヨリ東西ニ各 180° 迄測ル。

用例

$l=36°\ 43'$ N.	$S=55°\ 16'$……A_1	0.333……B_1	0.053
$d=18°\ 33'$ N.	$D=18°\ 10'$……A_2	9.995……B_2	9.198
$h=1^h\ 29^m\ 30^s$	……A_3	0.703 = B_3	0.703
	A_4	1.031……B_4	9.954

α 84°.68

β 42 00 (+

(精算値 233° 17'.3) Z N.126°.68 W.= 233° 19'

S 表

lトdトガ { 同名ナルトキ……$l+d$ / 異名ナルトキ……$l\sim d$ } $=S$

S	A_1	B_1		S	A_1	B_1		S	A_1	B_1		S	A_1	B_1	
° ′				° ′				° ′				° ′			
0 0	+∞	0.000	180 0	2 30	1.661	0.000	177 30	5 0	1.360	0.000	175 0	7 30	1.184	0.001	172 30
5	3.138	0.000	55	35	1.647	0.000	25	5	1.353	0.000	55	35	1.180	0.001	25
10	2.837	0.000	50	40	1.633	0.000	20	10	1.346	0.000	50	40	1.175	0.001	20
15	2.661	0.000	45	45	1.620	0.000	15	15	1.339	0.000	45	45	1.170	0.001	15
20	2.536	0.000	40	50	1.607	0.000	10	20	1.332	0.000	40	50	1.166	0.001	10
25	2.439	0.000	35	55	1.594	0.000	5	25	1.326	0.000	35	55	1.161	0.001	5
30	2.360	0.000	30	3 0	1.582	0.000	177 0	30	1.319	0.001	30	8 0	1.156	0.001	172 0
35	2.293	0.000	25	5	1.570	0.000	55	35	1.312	0.001	25	5	1.152	0.001	55
40	2.235	0.000	20	10	1.559	0.000	50	40	1.306	0.001	20	10	1.147	0.001	50
45	2.184	0.000	15	15	1.547	0.000	45	45	1.300	0.001	15	15	1.143	0.001	45
50	2.138	0.000	10	20	1.536	0.000	40	50	1.293	0.001	10	20	1.139	0.001	40
55	2.097	0.000	5	25	1.526	0.000	35	55	1.287	0.001	5	25	1.134	0.001	35
1 0	2.059	0.000	179 0	30	1.515	0.000	30	6 0	1.281	0.001	174 0	30	1.130	0.001	30
5	2.024	0.000	55	35	1.505	0.000	25	5	1.275	0.001	55	35	1.126	0.001	25
10	1.992	0.000	50	40	1.495	0.000	20	10	1.269	0.001	50	40	1.122	0.001	20
15	1.962	0.000	45	45	1.485	0.000	15	15	1.263	0.001	45	45	1.118	0.001	15
20	1.934	0.000	40	50	1.476	0.000	10	20	1.258	0.001	40	50	1.113	0.001	10
25	1.908	0.000	35	55	1.466	0.000	5	25	1.252	0.001	35	55	1.109	0.001	5
30	1.883	0.000	30	4 0	1.457	0.000	176 0	30	1.246	0.001	30	9 0	1.105	0.001	171 0
35	1.860	0.000	25	5	1.448	0.000	55	35	1.241	0.001	25	5	1.101	0.001	55
40	1.837	0.000	20	10	1.439	0.000	50	40	1.235	0.001	20	10	1.097	0.001	50
45	1.816	0.000	15	15	1.431	0.000	45	45	1.230	0.001	15	15	1.093	0.001	45
50	1.796	0.000	10	20	1.422	0.000	40	50	1.225	0.001	10	20	1.090	0.001	40
55	1.777	0.000	5	25	1.414	0.000	35	55	1.220	0.001	5	25	1.086	0.001	35
2 0	1.758	0.000	178 0	30	1.406	0.000	30	7 0	1.214	0.001	173 0	30	1.082	0.001	30
5	1.740	0.000	55	35	1.398	0.000	25	5	1.209	0.001	55	35	1.078	0.002	25
10	1.723	0.000	50	40	1.390	0.000	20	10	1.204	0.001	50	40	1.074	0.002	20
15	1.707	0.000	45	45	1.383	0.000	15	15	1.199	0.001	45	45	1.071	0.002	15
20	1.691	0.000	40	50	1.375	0.000	10	20	1.194	0.001	40	50	1.067	0.002	10
25	1.676	0.000	35	55	1.368	0.000	5	25	1.189	0.001	35	55	1.063	0.002	5
2 30	1.661	0.000	177 30	5 0	1.360	0.000	175 0	7 30	1.184	0.001	172 30	10 0	1.060	0.002	170 0
			° ′				° ′				° ′				° ′
	B_1	A_1	S		B_1	A_1	S		B_1	A_1	S		B_1	A_1	S

$A_1=\log\operatorname{cosec}\frac{S}{2}$ $A_1+A_2+A_3=A_4\rightarrow\alpha$

$B_1=\log\sec\frac{S}{2}$ $B_1+B_2+B_3=B_4\rightarrow\beta$

lトdトガ { 同名ナルトキ……$l+d$ / 異名ナルトキ……$l\sim d$ } $=S$

S	A_1	B_1		S	A_1	B_1		S	A_1	B_1		S	A_1	B_1	
° ′				° ′				° ′				° ′			
10 0	1.060	0.002	170 0	20 0	0.760	0.007	160 0	30 0	0.587	0.015	150 0	40 0	0.466	0.027	140 0
10	1.053	0.002	50	10	0.757	0.007	50	10	0.585	0.015	50	10	0.464	0.027	50
20	1.046	0.002	40	20	0.753	0.007	40	20	0.582	0.015	40	20	0.462	0.027	40
30	1.039	0.002	30	30	0.750	0.007	30	30	0.580	0.016	30	30	0.461	0.028	30
40	1.032	0.002	20	40	0.746	0.007	20	40	0.578	0.016	20	40	0.459	0.028	20
50	1.025	0.002	10	50	0.743	0.007	10	50	0.575	0.016	10	50	0.457	0.028	10
11 0	1.018	0.002	169 0	21 0	0.739	0.007	159 0	31 0	0.573	0.016	149 0	41 0	0.456	0.028	139 0
10	1.012	0.002	50	10	0.736	0.007	50	10	0.571	0.016	50	10	0.454	0.029	50
20	1.006	0.002	40	20	0.733	0.008	40	20	0.569	0.016	40	20	0.452	0.029	40
30	0.999	0.002	30	30	0.729	0.008	30	30	0.566	0.017	30	30	0.451	0.029	30
40	0.993	0.002	20	40	0.726	0.008	20	40	0.564	0.017	20	40	0.449	0.029	20
50	0.987	0.002	10	50	0.723	0.008	10	50	0.562	0.017	10	50	0.447	0.030	10
12 0	0.981	0.002	168 0	22 0	0.719	0.008	158 0	32 0	0.560	0.017	148 0	42 0	0.446	0.030	138 0
10	0.975	0.002	50	10	0.716	0.008	50	10	0.557	0.017	50	10	0.444	0.030	50
20	0.969	0.003	40	20	0.713	0.008	40	20	0.555	0.018	40	20	0.442	0.030	40
30	0.963	0.003	30	30	0.710	0.008	30	30	0.553	0.018	30	30	0.441	0.031	30
40	0.957	0.003	20	40	0.707	0.009	20	40	0.551	0.018	20	40	0.439	0.031	20
50	0.952	0.003	10	50	0.703	0.009	10	50	0.549	0.018	10	50	0.438	0.031	10
13 0	0.946	0.003	167 0	23 0	0.700	0.009	157 0	33 0	0.547	0.018	147 0	43 0	0.436	0.031	137 0
10	0.941	0.003	50	10	0.697	0.009	50	10	0.545	0.018	50	10	0.434	0.032	50
20	0.935	0.003	40	20	0.694	0.009	40	20	0.542	0.019	40	20	0.433	0.032	40
30	0.930	0.003	30	30	0.691	0.009	30	30	0.540	0.019	30	30	0.431	0.032	30
40	0.925	0.003	20	40	0.688	0.009	20	40	0.538	0.019	20	40	0.430	0.032	20
50	0.919	0.003	10	50	0.685	0.009	10	50	0.536	0.019	10	50	0.428	0.033	10
14 0	0.914	0.003	166 0	24 0	0.682	0.010	156 0	34 0	0.534	0.019	146 0	44 0	0.426	0.033	136 0
10	0.909	0.003	50	10	0.679	0.010	50	10	0.532	0.020	50	10	0.425	0.033	50
20	0.904	0.003	40	20	0.676	0.010	40	20	0.530	0.020	40	20	0.423	0.033	40
30	0.899	0.003	30	30	0.673	0.010	30	30	0.528	0.020	30	30	0.422	0.034	30
40	0.894	0.004	20	40	0.670	0.010	20	40	0.526	0.020	20	40	0.420	0.034	20
50	0.889	0.004	10	50	0.668	0.010	10	50	0.524	0.020	10	50	0.419	0.034	10
15 0	0.884	0.004	165 0	25 0	0.665	0.010	155 0	35 0	0.522	0.021	145 0	45 0	0.417	0.034	135 0
10	0.880	0.004	50	10	0.662	0.011	50	10	0.520	0.021	50	10	0.416	0.035	50
20	0.875	0.004	40	20	0.659	0.011	40	20	0.518	0.021	40	20	0.414	0.035	40
30	0.870	0.004	30	30	0.656	0.011	30	30	0.516	0.021	30	30	0.413	0.035	30
40	0.866	0.004	20	40	0.653	0.011	20	40	0.514	0.021	20	40	0.411	0.035	20
50	0.861	0.004	10	50	0.651	0.011	10	50	0.512	0.022	10	50	0.410	0.036	10
16 0	0.856	0.004	164 0	26 0	0.648	0.011	154 0	36 0	0.510	0.022	144 0	46 0	0.408	0.036	134 0
10	0.852	0.004	50	10	0.645	0.011	50	10	0.508	0.022	50	10	0.407	0.036	50
20	0.848	0.004	40	20	0.642	0.012	40	20	0.506	0.022	40	20	0.405	0.037	40
30	0.843	0.005	30	30	0.640	0.012	30	30	0.504	0.022	30	30	0.404	0.037	30
40	0.839	0.005	20	40	0.637	0.012	20	40	0.502	0.023	20	40	0.402	0.037	20
50	0.835	0.005	10	50	0.634	0.012	10	50	0.500	0.023	10	50	0.401	0.037	10
17 0	0.830	0.005	163 0	27 0	0.632	0.012	153 0	37 0	0.499	0.023	143 0	47 0	0.399	0.038	133 0
10	0.826	0.005	50	10	0.629	0.012	50	10	0.497	0.023	50	10	0.398	0.038	50
20	0.822	0.005	40	20	0.627	0.012	40	20	0.495	0.023	40	20	0.396	0.038	40
30	0.818	0.005	30	30	0.624	0.013	30	30	0.493	0.024	30	30	0.395	0.038	30
40	0.814	0.005	20	40	0.621	0.013	20	40	0.491	0.024	20	40	0.394	0.039	20
50	0.810	0.005	10	50	0.619	0.013	10	50	0.489	0.024	10	50	0.392	0.039	10
18 0	0.806	0.005	162 0	28 0	0.616	0.013	152 0	38 0	0.487	0.024	142 0	48 0	0.391	0.039	132 0
10	0.802	0.005	50	10	0.614	0.013	50	10	0.486	0.025	50	10	0.389	0.040	50
20	0.798	0.006	40	20	0.611	0.013	40	20	0.484	0.025	40	20	0.388	0.040	40
30	0.794	0.006	30	30	0.609	0.014	30	30	0.482	0.025	30	30	0.386	0.040	30
40	0.790	0.006	20	40	0.606	0.014	20	40	0.480	0.025	20	40	0.385	0.040	20
50	0.786	0.006	10	50	0.604	0.014	10	50	0.478	0.025	10	50	0.384	0.041	10
19 0	0.782	0.006	161 0	29 0	0.601	0.014	151 0	39 0	0.477	0.026	141 0	49 0	0.382	0.041	131 0
10	0.779	0.006	50	10	0.599	0.014	50	10	0.475	0.026	50	10	0.381	0.041	50
20	0.775	0.006	40	20	0.597	0.014	40	20	0.473	0.026	40	20	0.380	0.042	40
30	0.771	0.006	30	30	0.594	0.015	30	30	0.471	0.026	30	30	0.378	0.042	30
40	0.768	0.006	20	40	0.592	0.015	20	40	0.469	0.027	20	40	0.377	0.042	20
50	0.764	0.007	10	50	0.589	0.015	10	50	0.468	0.027	10	50	0.375	0.042	10
20 0	0.760	0.007	160 0	30 0	0.587	0.015	150 0	40 0	0.466	0.027	140 0	50 0	0.374	0.043	130 0
			° ′				° ′				° ′				° ′
	B_1	A_1	S		B_1	A_1	S		B_1	A_1	S		B_1	A_1	S

$A_1=\log\operatorname{cosec}\frac{S}{2}$ $A_1+A_2+A_3=A_4\rightarrow\alpha$

$B_1=\log\sec\frac{S}{2}$ $B_1+B_2+B_3=B_4\rightarrow\beta$

第 10 表　時—方位角計算表 *S* 表

l と *d* とが { 同名ナルトキ……$l+d$ / 異名ナルトキ……$l-d$ } $=S$

S	A_1	B_1		S	A_1	B_1		S	A_1	B_1		S	A_1	B_1	
° ′				° ′				° ′				° ′			
50 0	0.374	0.043	130 0	60 0	0.301	0.062	120 0	70 0	0.241	0.087	110 0	80 0	0.192	0.116	100 0
10	0.373	0.043	50	10	0.300	0.063	50	10	0.241	0.087	50	10	0.191	0.116	50
20	0.371	0.043	40	20	0.299	0.063	40	20	0.240	0.088	40	20	0.190	0.117	40
30	0.370	0.044	30	30	0.298	0.064	30	30	0.239	0.088	30	30	0.190	0.117	30
40	0.369	0.044	20	40	0.297	0.064	20	40	0.238	0.088	20	40	0.189	0.118	20
50	0.367	0.044	10	50	0.296	0.064	10	50	0.237	0.089	10	50	0.188	0.118	10
51 0	0.366	0.045	129 0	61 0	0.295	0.065	119 0	71 0	0.236	0.089	109 0	81 0	0.187	0.119	99 0
10	0.365	0.045	50	10	0.293	0.065	50	10	0.235	0.090	50	10	0.187	0.119	50
20	0.363	0.045	40	20	0.292	0.065	40	20	0.234	0.090	40	20	0.186	0.120	40
30	0.362	0.045	30	30	0.291	0.066	30	30	0.233	0.091	30	30	0.185	0.121	30
40	0.361	0.046	20	40	0.290	0.066	20	40	0.233	0.091	20	40	0.185	0.121	20
50	0.359	0.046	10	50	0.289	0.067	10	50	0.232	0.092	10	50	0.184	0.122	10
52 0	0.358	0.046	128 0	62 0	0.288	0.067	118 0	72 0	0.231	0.092	108 0	82 0	0.183	0.122	98 0
10	0.357	0.047	50	10	0.287	0.067	50	10	0.230	0.093	50	10	0.182	0.123	50
20	0.356	0.047	40	20	0.286	0.068	40	20	0.229	0.093	40	20	0.182	0.123	40
30	0.354	0.047	30	30	0.285	0.068	30	30	0.228	0.093	30	30	0.181	0.124	30
40	0.353	0.048	20	40	0.284	0.068	20	40	0.227	0.094	20	40	0.180	0.124	20
50	0.352	0.048	10	50	0.283	0.069	10	50	0.226	0.094	10	50	0.179	0.125	10
53 0	0.350	0.048	127 0	63 0	0.282	0.069	117 0	73 0	0.226	0.095	107 0	83 0	0.179	0.126	97 0
10	0.349	0.049	50	10	0.281	0.070	50	10	0.225	0.095	50	10	0.178	0.126	50
20	0.348	0.049	40	20	0.280	0.070	40	20	0.224	0.096	40	20	0.177	0.127	40
30	0.347	0.049	30	30	0.279	0.070	30	30	0.223	0.096	30	30	0.177	0.127	30
40	0.345	0.049	20	40	0.278	0.071	20	40	0.222	0.097	20	40	0.176	0.128	20
50	0.344	0.050	10	50	0.277	0.071	10	50	0.221	0.097	10	50	0.175	0.128	10
54 0	0.343	0.050	126 0	64 0	0.276	0.072	116 0	74 0	0.221	0.098	106 0	84 0	0.174	0.129	96 0
10	0.342	0.050	50	10	0.275	0.072	50	10	0.220	0.098	50	10	0.174	0.129	50
20	0.340	0.051	40	20	0.274	0.072	40	20	0.219	0.099	40	20	0.173	0.130	40
30	0.339	0.051	30	30	0.273	0.073	30	30	0.218	0.099	30	30	0.172	0.131	30
40	0.338	0.051	20	40	0.272	0.073	20	40	0.217	0.100	20	40	0.172	0.131	20
50	0.337	0.052	10	50	0.271	0.074	10	50	0.216	0.100	10	50	0.171	0.132	10
55 0	0.336	0.052	125 0	65 0	0.270	0.074	115 0	75 0	0.216	0.101	105 0	85 0	0.170	0.132	95 0
10	0.334	0.052	50	10	0.269	0.074	50	10	0.215	0.101	50	10	0.170	0.133	50
20	0.333	0.053	40	20	0.268	0.075	40	20	0.214	0.102	40	20	0.169	0.134	40
30	0.332	0.053	30	30	0.267	0.075	30	30	0.213	0.102	30	30	0.168	0.134	30
40	0.331	0.053	20	40	0.266	0.076	20	40	0.212	0.102	20	40	0.168	0.135	20
50	0.330	0.054	10	50	0.265	0.076	10	50	0.211	0.103	10	50	0.167	0.135	10
56 0	0.328	0.054	124 0	66 0	0.264	0.076	114 0	76 0	0.211	0.103	104 0	86 0	0.166	0.136	94 0
10	0.327	0.054	50	10	0.263	0.077	50	10	0.210	0.104	50	10	0.166	0.136	50
20	0.326	0.055	40	20	0.262	0.077	40	20	0.209	0.104	40	20	0.165	0.137	40
30	0.325	0.055	30	30	0.261	0.078	30	30	0.208	0.105	30	30	0.164	0.138	30
40	0.324	0.055	20	40	0.260	0.078	20	40	0.207	0.105	20	40	0.164	0.138	20
50	0.323	0.056	10	50	0.259	0.078	10	50	0.207	0.106	10	50	0.163	0.139	10
57 0	0.321	0.056	123 0	67 0	0.258	0.079	113 0	77 0	0.206	0.106	103 0	87 0	0.162	0.139	93 0
10	0.320	0.056	50	10	0.257	0.079	50	10	0.205	0.107	50	10	0.162	0.140	50
20	0.319	0.057	40	20	0.256	0.080	40	20	0.204	0.107	40	20	0.161	0.141	40
30	0.318	0.057	30	30	0.255	0.080	30	30	0.203	0.108	30	30	0.160	0.141	30
40	0.317	0.057	20	40	0.254	0.081	20	40	0.203	0.108	20	40	0.160	0.142	20
50	0.316	0.058	10	50	0.253	0.081	10	50	0.202	0.109	10	50	0.159	0.142	10
58 0	0.314	0.058	122 0	68 0	0.252	0.081	112 0	78 0	0.201	0.109	102 0	88 0	0.158	0.143	92 0
10	0.313	0.059	50	10	0.252	0.082	50	10	0.200	0.110	50	10	0.158	0.144	50
20	0.312	0.059	40	20	0.251	0.082	40	20	0.200	0.111	40	20	0.157	0.144	40
30	0.311	0.059	30	30	0.250	0.083	30	30	0.199	0.111	30	30	0.156	0.145	30
40	0.310	0.060	20	40	0.249	0.083	20	40	0.198	0.112	20	40	0.156	0.146	20
50	0.309	0.060	10	50	0.248	0.084	10	50	0.197	0.112	10	50	0.155	0.146	10
59 0	0.308	0.060	121 0	69 0	0.247	0.084	111 0	79 0	0.196	0.113	101 0	89 0	0.154	0.147	91 0
10	0.307	0.061	50	10	0.246	0.084	50	10	0.196	0.113	50	10	0.154	0.147	50
20	0.305	0.061	40	20	0.245	0.085	40	20	0.195	0.114	40	20	0.153	0.148	40
30	0.304	0.061	30	30	0.244	0.085	30	30	0.194	0.114	30	30	0.152	0.149	30
40	0.303	0.062	20	40	0.243	0.086	20	40	0.193	0.115	20	40	0.152	0.149	20
50	0.302	0.062	10	50	0.242	0.086	10	50	0.193	0.115	10	50	0.151	0.150	10
60 0	0.301	0.062	120 0	70 0	0.241	0.087	110 0	80 0	0.192	0.116	100 0	90 0	0.151	0.151	90 0
			° ′				° ′				° ′				° ′
	B_1	A_1	S		B_1	A_1	S		B_1	A_1	S		B_1	A_1	S

$A_1 = \log \operatorname{cosec} \frac{S}{2}$　　$A_1 + A_2 + A_3 = A_4 \rightarrow \alpha$

$B_1 = \log \sec \frac{S}{2}$　　$B_1 + B_2 + B_3 = B_4 \rightarrow \beta$

第 10 表　時—方位角計算表 *D* 表

l と *d* とが { 同名ナルトキ……$l-d$ / 異名ナルトキ……$l+d$ } $=D$

D	A_2	B_2		D	A_2	B_2		D	A_2	B_2		D	A_2	B_2	
° ′				° ′				° ′				° ′			
0 0	0.000	−∞	180 0	5 0	0.000	8.640	175 0	10 0	9.998	8.940	170 0	20 0	9.993	9.240	160 0
5	0.000	6.862	55	5	0.000	8.647	55	10	9.998	8.947	50	10	9.993	9.243	50
10	0.000	7.163	50	10	0.000	8.654	50	20	9.998	8.954	40	20	9.993	9.247	40
15	0.000	7.339	45	15	0.000	8.661	45	30	9.998	8.961	30	30	9.993	9.250	30
20	0.000	7.464	40	20	0.000	8.668	40	40	9.998	8.968	20	40	9.993	9.254	20
25	0.000	7.561	35	25	0.000	8.674	35	50	9.998	8.975	10	50	9.993	9.257	10
30	0.000	7.640	30	30	9.999	8.681	30	11 0	9.998	8.982	169 0	21 0	9.993	9.261	159 0
35	0.000	7.707	25	35	9.999	8.688	25	10	9.998	8.988	50	10	9.993	9.264	50
40	0.000	7.765	20	40	9.999	8.694	20	20	9.998	8.994	40	20	9.992	9.267	40
45	0.000	7.816	15	45	9.999	8.700	15	30	9.998	9.001	30	30	9.992	9.271	30
50	0.000	7.862	10	50	9.999	8.707	10	40	9.998	9.007	20	40	9.992	9.274	20
55	0.000	7.903	5	55	9.999	8.713	5	50	9.998	9.013	10	50	9.992	9.277	10
1 0	0.000	7.941	179 0	6 0	9.999	8.719	174 0	12 0	9.998	9.019	168 0	22 0	9.992	9.281	158 0
5	0.000	7.976	55	5	9.999	8.725	55	10	9.998	9.025	50	10	9.992	9.284	50
10	0.000	8.008	50	10	9.999	8.731	50	20	9.997	9.031	40	20	9.992	9.287	40
15	0.000	8.038	45	15	9.999	8.737	45	30	9.997	9.037	30	30	9.992	9.290	30
20	0.000	8.066	40	20	9.999	8.742	40	40	9.997	9.043	20	40	9.991	9.293	20
25	0.000	8.092	35	25	9.999	8.748	35	50	9.997	9.048	10	50	9.991	9.297	10
30	0.000	8.117	30	30	9.999	8.754	30	13 0	9.997	9.054	167 0	23 0	9.991	9.300	157 0
35	0.000	8.140	25	35	9.999	8.759	25	10	9.997	9.059	50	10	9.991	9.303	50
40	0.000	8.163	20	40	9.999	8.765	20	20	9.997	9.065	40	20	9.991	9.306	40
45	0.000	8.184	15	45	9.999	8.770	15	30	9.997	9.070	30	30	9.991	9.309	30
50	0.000	8.204	10	50	9.999	8.775	10	40	9.997	9.075	20	40	9.991	9.312	20
55	0.000	8.223	5	55	9.999	8.780	5	50	9.997	9.081	10	50	9.991	9.315	10
2 0	0.000	8.242	178 0	7 0	9.999	8.786	173 0	14 0	9.997	9.086	166 0	24 0	9.990	9.318	156 0
5	0.000	8.260	55	5	9.999	8.791	55	10	9.997	9.091	50	10	9.990	9.321	50
10	0.000	8.277	50	10	9.999	8.796	50	20	9.997	9.096	40	20	9.990	9.324	40
15	0.000	8.293	45	15	9.999	8.801	45	30	9.997	9.101	30	30	9.990	9.327	30
20	0.000	8.309	40	20	9.999	8.806	40	40	9.996	9.106	20	40	9.990	9.330	20
25	0.000	8.324	35	25	9.999	8.811	35	50	9.996	9.111	10	50	9.990	9.332	10
30	0.000	8.339	30	30	9.999	8.816	30	15 0	9.996	9.116	165 0	25 0	9.990	9.335	155 0
35	0.000	8.353	25	35	9.999	8.820	25	10	9.996	9.120	50	10	9.989	9.338	50
40	0.000	8.367	20	40	9.999	8.825	20	20	9.996	9.125	40	20	9.989	9.341	40
45	0.000	8.380	15	45	9.999	8.830	15	30	9.996	9.130	30	30	9.989	9.344	30
50	0.000	8.393	10	50	9.999	8.834	10	40	9.996	9.134	20	40	9.989	9.347	20
55	0.000	8.406	5	55	9.999	8.839	5	50	9.996	9.139	10	50	9.989	9.349	10
3 0	0.000	8.418	177 0	8 0	9.999	8.844	172 0	16 0	9.996	9.144	164 0	26 0	9.989	9.352	154 0
5	0.000	8.430	55	5	9.999	8.848	55	10	9.996	9.148	50	10	9.989	9.355	50
10	0.000	8.441	50	10	9.999	8.853	50	20	9.996	9.152	40	20	9.988	9.358	40
15	0.000	8.453	45	15	9.999	8.857	45	30	9.995	9.157	30	30	9.988	9.360	30
20	0.000	8.464	40	20	9.999	8.861	40	40	9.995	9.161	20	40	9.988	9.363	20
25	0.000	8.474	35	25	9.999	8.866	35	50	9.995	9.165	10	50	9.988	9.366	10
30	0.000	8.485	30	30	9.999	8.870	30	17 0	9.995	9.170	163 0	27 0	9.988	9.368	153 0
35	0.000	8.495	25	35	9.999	8.874	25	10	9.995	9.174	50	10	9.988	9.371	50
40	0.000	8.505	20	40	9.999	8.878	20	20	9.995	9.178	40	20	9.988	9.373	40
45	0.000	8.515	15	45	9.999	8.882	15	30	9.995	9.182	30	30	9.987	9.376	30
50	0.000	8.524	10	50	9.999	8.887	10	40	9.995	9.186	20	40	9.987	9.379	20
55	0.000	8.534	5	55	9.999	8.891	5	50	9.995	9.190	10	50	9.987	9.381	10
4 0	0.000	8.543	176 0	9 0	9.999	8.895	171 0	18 0	9.995	9.194	162 0	28 0	9.987	9.384	152 0
5	0.000	8.552	55	5	9.999	8.899	55	10	9.995	9.198	50	10	9.987	9.386	50
10	0.000	8.561	50	10	9.999	8.903	50	20	9.994	9.202	40	20	9.987	9.389	40
15	0.000	8.569	45	15	9.999	8.907	45	30	9.994	9.206	30	30	9.986	9.391	30
20	0.000	8.578	40	20	9.999	8.910	40	40	9.994	9.210	20	40	9.986	9.394	20
25	0.000	8.586	35	25	9.999	8.914	35	50	9.994	9.214	10	50	9.986	9.396	10
30	0.000	8.594	30	30	9.999	8.918	30	19 0	9.994	9.218	161 0	29 0	9.986	9.399	151 0
35	0.000	8.602	25	35	9.998	8.922	25	10	9.994	9.221	50	10	9.986	9.401	50
40	0.000	8.610	20	40	9.998	8.926	20	20	9.994	9.225	40	20	9.986	9.403	40
45	0.000	8.617	15	45	9.998	8.929	15	30	9.994	9.229	30	30	9.985	9.406	30
50	0.000	8.625	10	50	9.998	8.933	10	40	9.994	9.232	20	40	9.985	9.408	20
55	0.000	8.632	5	55	9.998	8.937	5	50	9.993	9.236	10	50	9.985	9.411	10
5 0	0.000	8.640	175 0	10 0	9.998	8.940	170 0	20 0	9.993	9.240	160 0	30 0	9.985	9.413	150 0
			° ′				° ′				° ′				° ′
	B_2	A_2	D		B_2	A_2	D		B_2	A_2	D		B_2	A_2	D

$A_2 = \log \cos \frac{D}{2}$　　$A_1 + A_2 + A_3 = A_4 \rightarrow \alpha$

$B_2 = \log \sin \frac{D}{2}$　　$B_1 + B_2 + B_3 = B_4 \rightarrow \beta$

lトdトガ{同名ナルトキ……$l \sim d$ / 異名ナルトキ……$l+d$} $=D$

D	A_2	B_2	
° ′			
30 0	9.985	9.413	150 0
10	9.985	9.415	50
20	9.985	9.418	40
30	9.984	9.420	30
40	9.984	9.422	20
50	9.984	9.425	10
31 0	9.984	9.427	149 0
10	9.984	9.429	50
20	9.984	9.431	40
30	9.983	9.434	30
40	9.983	9.436	20
50	9.983	9.438	10
32 0	9.983	9.440	148 0
10	9.983	9.443	50
20	9.982	9.445	40
30	9.982	9.447	30
40	9.982	9.449	20
50	9.982	9.451	10
33 0	9.982	9.453	147 0
10	9.982	9.455	50
20	9.981	9.458	40
30	9.981	9.460	30
40	9.981	9.462	20
50	9.981	9.464	10
34 0	9.981	9.466	146 0
10	9.980	9.468	50
20	9.980	9.470	40
30	9.980	9.472	30
40	9.980	9.474	20
50	9.980	9.476	10
35 0	9.979	9.478	145 0
10	9.979	9.480	50
20	9.979	9.482	40
30	9.979	9.484	30
40	9.979	9.486	20
50	9.978	9.488	10
36 0	9.978	9.490	144 0
10	9.978	9.492	50
20	9.978	9.494	40
30	9.978	9.496	30
40	9.977	9.498	20
50	9.977	9.500	10
37 0	9.977	9.501	143 0
10	9.977	9.503	50
20	9.977	9.505	40
30	9.976	9.507	30
40	9.976	9.509	20
50	9.976	9.511	10
38 0	9.976	9.513	142 0
10	9.975	9.514	50
20	9.975	9.516	40
30	9.975	9.518	30
40	9.975	9.520	20
50	9.975	9.522	10
39 0	9.974	9.523	141 0
10	9.974	9.525	50
20	9.974	9.527	40
30	9.974	9.529	30
40	9.973	9.531	20
50	9.973	9.532	10
40 0	9.973	9.534	140 0
			° ′
	B_2	A_2	D

D	A_2	B_2	
° ′			
40 0	9.973	9.534	140 0
10	9.973	9.536	50
20	9.973	9.538	40
30	9.972	9.539	30
40	9.972	9.541	20
50	9.972	9.543	10
41 0	9.972	9.544	139 0
10	9.971	9.546	50
20	9.971	9.548	40
30	9.971	9.549	30
40	9.971	9.551	20
50	9.970	9.553	10
42 0	9.970	9.554	138 0
10	9.970	9.556	50
20	9.970	9.558	40
30	9.969	9.559	30
40	9.969	9.561	20
50	9.969	9.562	10
43 0	9.969	9.564	137 0
10	9.968	9.566	50
20	9.968	9.567	40
30	9.968	9.569	30
40	9.968	9.570	20
50	9.967	9.572	10
44 0	9.967	9.574	136 0
10	9.967	9.575	50
20	9.967	9.577	40
30	9.966	9.578	30
40	9.966	9.580	20
50	9.966	9.581	10
45 0	9.966	9.583	135 0
10	9.965	9.584	50
20	9.965	9.586	40
30	9.965	9.587	30
40	9.965	9.589	20
50	9.964	9.590	10
46 0	9.964	9.592	134 0
10	9.964	9.593	50
20	9.963	9.595	40
30	9.963	9.596	30
40	9.963	9.598	20
50	9.963	9.599	10
47 0	9.962	9.601	133 0
10	9.962	9.602	50
20	9.962	9.604	40
30	9.962	9.605	30
40	9.961	9.606	20
50	9.961	9.608	10
48 0	9.961	9.609	132 0
10	9.960	9.611	50
20	9.960	9.612	40
30	9.960	9.614	30
40	9.960	9.615	20
50	9.959	9.616	10
49 0	9.959	9.618	131 0
10	9.959	9.619	50
20	9.958	9.620	40
30	9.958	9.622	30
40	9.958	9.623	20
50	9.958	9.625	10
50 0	9.957	9.626	130 0
			° ′
	B_2	A_2	D

D	A_2	B_2	
° ′			
50 0	9.957	9.626	130 0
10	9.957	9.627	50
20	9.957	9.629	40
30	9.956	9.630	30
40	9.956	9.631	20
50	9.956	9.633	10
51 0	9.955	9.634	129 0
10	9.955	9.635	50
20	9.955	9.637	40
30	9.955	9.638	30
40	9.954	9.639	20
50	9.954	9.641	10
52 0	9.954	9.642	128 0
10	9.953	9.643	50
20	9.953	9.644	40
30	9.953	9.646	30
40	9.952	9.647	20
50	9.952	9.648	10
53 0	9.952	9.650	127 0
10	9.951	9.651	50
20	9.951	9.652	40
30	9.951	9.653	30
40	9.951	9.655	20
50	9.950	9.656	10
54 0	9.950	9.657	126 0
10	9.950	9.658	50
20	9.949	9.660	40
30	9.949	9.661	30
40	9.949	9.662	20
50	9.948	9.663	10
55 0	9.948	9.664	125 0
10	9.948	9.666	50
20	9.947	9.667	40
30	9.947	9.668	30
40	9.947	9.669	20
50	9.946	9.670	10
56 0	9.946	9.672	124 0
10	9.946	9.673	50
20	9.945	9.674	40
30	9.945	9.675	30
40	9.945	9.676	20
50	9.944	9.677	10
57 0	9.944	9.679	123 0
10	9.944	9.680	50
20	9.943	9.681	40
30	9.943	9.682	30
40	9.943	9.683	20
50	9.942	9.684	10
58 0	9.942	9.686	122 0
10	9.941	9.687	50
20	9.941	9.688	40
30	9.941	9.689	30
40	9.940	9.690	20
50	9.940	9.691	10
59 0	9.940	9.692	121 0
10	9.939	9.693	50
20	9.939	9.695	40
30	9.939	9.696	30
40	9.938	9.697	20
50	9.938	9.698	10
60 0	9.938	9.699	120 0
			° ′
	B_2	A_2	D

D	A_2	B_2	
° ′			
60 0	9.938	9.699	120 0
10	9.937	9.700	50
20	9.937	9.701	40
30	9.936	9.702	30
40	9.936	9.703	20
50	9.936	9.704	10
61 0	9.935	9.705	119 0
10	9.935	9.707	50
20	9.935	9.708	40
30	9.934	9.709	30
40	9.934	9.710	20
50	9.933	9.711	10
62 0	9.933	9.712	118 0
10	9.933	9.713	50
20	9.932	9.714	40
30	9.932	9.715	30
40	9.932	9.716	20
50	9.931	9.717	10
63 0	9.931	9.718	117 0
10	9.930	9.719	50
20	9.930	9.720	40
30	9.930	9.721	30
40	9.929	9.722	20
50	9.929	9.723	10
64 0	9.928	9.724	116 0
10	9.928	9.725	50
20	9.928	9.726	40
30	9.927	9.727	30
40	9.927	9.728	20
50	9.926	9.729	10
65 0	9.926	9.730	115 0
10	9.926	9.731	50
20	9.925	9.732	40
30	9.925	9.733	30
40	9.924	9.734	20
50	9.924	9.735	10
66 0	9.924	9.736	114 0
10	9.923	9.737	50
20	9.923	9.738	40
30	9.922	9.739	30
40	9.922	9.740	20
50	9.922	9.741	10
67 0	9.921	9.742	113 0
10	9.921	9.743	50
20	9.920	9.744	40
30	9.920	9.745	30
40	9.919	9.746	20
50	9.919	9.747	10
68 0	9.919	9.748	112 0
10	9.918	9.748	50
20	9.918	9.749	40
30	9.917	9.750	30
40	9.917	9.751	20
50	9.916	9.752	10
69 0	9.916	9.753	111 0
10	9.916	9.754	50
20	9.915	9.755	40
30	9.915	9.756	30
40	9.914	9.757	20
50	9.914	9.758	10
70 0	9.913	9.759	110 0
			° ′
	B_2	A_2	D

$A_2 = \log\cos\frac{D}{2}$ $A_1 + A_2 + A_3 = A_4 \to \alpha$

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$B_2 = \log\sin\frac{D}{2}$ $B_1 + B_2 + B_3 = B_4 \to \beta$

D 表

D	A_2	B_2	
° ′			
70 0	9.913	9.759	110 0
10	9.913	9.759	50
20	9.912	9.760	40
30	9.912	9.761	30
40	9.912	9.762	20
50	9.911	9.763	10
71 0	9.911	9.764	109 0
10	9.910	9.765	50
20	9.910	9.766	40
30	9.909	9.767	30
40	9.909	9.767	20
50	9.908	9.768	10
72 0	9.908	9.769	108 0
10	9.907	9.770	50
20	9.907	9.771	40
30	9.907	9.772	30
40	9.906	9.773	20
50	9.906	9.774	10
73 0	9.905	9.774	107 0
10	9.905	9.775	50
20	9.904	9.776	40
30	9.904	9.777	30
40	9.903	9.778	20
50	9.903	9.779	10
74 0	9.902	9.779	106 0
10	9.902	9.780	50
20	9.901	9.781	40
30	9.901	9.782	30
40	9.900	9.783	20
50	9.900	9.784	10
75 0	9.899	9.784	105 0
10	9.899	9.785	50
20	9.898	9.786	40
30	9.898	9.787	30
40	9.898	9.788	20
50	9.897	9.789	10
76 0	9.897	9.789	104 0
10	9.896	9.790	50
20	9.896	9.791	40
30	9.895	9.792	30
40	9.895	9.793	20
50	9.894	9.793	10
77 0	9.894	9.794	103 0
10	9.893	9.795	50
20	9.893	9.796	40
30	9.892	9.797	30
40	9.892	9.797	20
50	9.891	9.798	10
78 0	9.891	9.799	102 0
10	9.890	9.800	50
20	9.889	9.800	40
30	9.889	9.801	30
40	9.888	9.802	20
50	9.888	9.803	10
79 0	9.887	9.804	101 0
10	9.887	9.804	50
20	9.886	9.805	40
30	9.886	9.806	30
40	9.885	9.807	20
50	9.885	9.807	10
80 0	9.884	9.808	100 0
			° ′
	B_2	A_2	D

D	A_2	B_2	
° ′			
80 0	9.884	9.808	100 0
10	9.884	9.809	50
20	9.883	9.810	40
30	9.883	9.810	30
40	9.882	9.811	20
50	9.882	9.812	10
81 0	9.881	9.813	99 0
10	9.881	9.813	50
20	9.880	9.814	40
30	9.879	9.815	30
40	9.879	9.815	20
50	9.878	9.816	10
82 0	9.878	9.817	98 0
10	9.877	9.818	50
20	9.877	9.818	40
30	9.876	9.819	30
40	9.876	9.820	20
50	9.875	9.821	10
83 0	9.874	9.821	97 0
10	9.874	9.822	50
20	9.873	9.823	40
30	9.873	9.823	30
40	9.872	9.824	20
50	9.872	9.825	10
84 0	9.871	9.826	96 0
10	9.871	9.826	50
20	9.870	9.827	40
30	9.869	9.828	30
40	9.869	9.828	20
50	9.868	9.829	10
85 0	9.868	9.830	95 0
10	9.867	9.830	50
20	9.866	9.831	40
30	9.866	9.832	30
40	9.865	9.832	20
50	9.865	9.833	10
86 0	9.864	9.834	94 0
10	9.864	9.834	50
20	9.863	9.835	40
30	9.862	9.836	30
40	9.862	9.836	20
50	9.861	9.837	10
87 0	9.861	9.838	93 0
10	9.860	9.838	50
20	9.859	9.839	40
30	9.859	9.840	30
40	9.858	9.840	20
50	9.858	9.841	10
88 0	9.857	9.842	92 0
10	9.856	9.842	50
20	9.856	9.843	40
30	9.855	9.844	30
40	9.854	9.844	20
50	9.854	9.845	10
89 0	9.853	9.846	91 0
10	9.853	9.846	50
20	9.852	9.847	40
30	9.851	9.848	30
40	9.851	9.848	20
50	9.850	9.849	10
90 0	9.849	9.849	90 0
			° ′
	B_2	A_2	D

h 表

h	$A_3 = B$	
h m		
0 0.0	+∞	24 0.0
.5	2.962	.5
1.0	2.661	59.0
.5	2.485	.5
2.0	2.360	58.0
.5	2.263	.5
3.0	2.184	57.0
.5	2.117	.5
4.0	2.059	56.0
.5	2.008	.5
5.0	1.962	55.0
.5	1.921	.5
6.0	1.883	54.0
.5	1.848	.5
7.0	1.816	53.0
.5	1.786	.5
8.0	1.758	52.0
.5	1.732	.5
9.0	1.707	51.0
.5	1.683	.5
10.0	1.661	50.0
.5	1.640	.5
11.0	1.620	49.0
.5	1.600	.5
12.0	1.582	48.0
.5	1.564	.5
13.0	1.547	47.0
.5	1.531	.5
14.0	1.515	46.0
.5	1.500	.5
15.0	1.485	45.0
.5	1.471	.5
16.0	1.457	44.0
.5	1.444	.5
17.0	1.431	43.0
.5	1.418	.5
18.0	1.406	42.0
.5	1.394	.5
19.0	1.382	41.0
.5	1.371	.5
20.0	1.360	40.0
.5	1.349	.5
21.0	1.339	39.0
.5	1.328	.5
22.0	1.318	38.0
.5	1.309	.5
23.0	1.299	37.0
.5	1.290	.5
24.0	1.281	36.0
.5	1.272	.5
25.0	1.263	35.0
.5	1.254	.5
26.0	1.246	34.0
.5	1.237	.5
27.0	1.229	33.0
.5	1.221	.5
28.0	1.214	32.0
.5	1.206	.5
29.0	1.198	31.0
.5	1.191	.5
0 30.0	1.183	23 30.0
		h m
	$A_3 = B_3$	h

h	$A_3 = B$	
h m		
0 30.0	1.183	23 30.0
.5	1.176	.5
31.0	1.169	29.0
.5	1.162	.5
32.0	1.155	28.0
.5	1.149	.5
33.0	1.142	27.0
.5	1.135	.5
34.0	1.129	26.0
.5	1.123	.5
35.0	1.116	25.0
.5	1.110	.5
36.0	1.104	24.0
.5	1.098	.5
37.0	1.092	23.0
.5	1.086	.5
38.0	1.080	22.0
.5	1.075	.5
39.0	1.069	21.0
.5	1.064	.5
40.0	1.058	20.0
.5	1.053	.5
41.0	1.047	19.0
.5	1.042	.5
42.0	1.037	18.0
.5	1.032	.5
43.0	1.026	17.0
.5	1.021	.5
44.0	1.016	16.0
.5	1.011	.5
45.0	1.007	15.0
.5	1.002	.5
46.0	0.997	14.0
.5	0.992	.5
47.0	0.988	13.0
.5	0.983	.5
48.0	0.978	12.0
.5	0.974	.5
49.0	0.969	11.0
.5	0.965	.5
50.0	0.961	10.0
.5	0.956	.5
51.0	0.952	9.0
.5	0.948	.5
52.0	0.943	8.0
.5	0.939	.5
53.0	0.935	7.0
.5	0.931	.5
54.0	0.927	6.0
.5	0.923	.5
55.0	0.919	5.0
.5	0.915	.5
56.0	0.911	4.0
.5	0.907	.5
57.0	0.903	3.0
.5	0.899	.5
58.0	0.895	2.0
.5	0.892	.5
59.0	0.888	1.0
.5	0.884	.5
1 0.0	0.881	23 0.0
		h m
	$A_3 = B_3$	h

h	$A_3 = B$	
h m		
1 0	0.881	23 0
1	0.873	59
2	0.866	58
3	0.859	57
4	0.852	56
5	0.845	55
6	0.839	54
7	0.832	53
8	0.826	52
9	0.819	51
10	0.813	50
11	0.806	49
12	0.800	48
13	0.794	47
14	0.788	46
15	0.782	45
16	0.776	44
17	0.771	43
18	0.765	42
19	0.759	41
20	0.754	40
21	0.748	39
22	0.743	38
23	0.737	37
24	0.732	36
25	0.727	35
26	0.722	34
27	0.716	33
28	0.711	32
29	0.706	31
30	0.701	30
31	0.696	29
32	0.692	28
33	0.687	27
34	0.682	26
35	0.677	25
36	0.673	24
37	0.668	23
38	0.663	22
39	0.659	21
40	0.654	20
41	0.650	19
42	0.645	18
43	0.641	17
44	0.637	16
45	0.632	15
46	0.628	14
47	0.624	13
48	0.620	12
49	0.615	11
50	0.611	10
51	0.607	9
52	0.603	8
53	0.599	7
54	0.595	6
55	0.591	5
56	0.587	4
57	0.583	3
58	0.580	2
59	0.576	1
2 0	0.572	22 0
		h m
	$A_3 = B_2$	h

$A_2 = \log\cos\frac{D}{2}$ $A_1 + A_2 + A_3 = A_4 \to \alpha$ $A_3 = B_3 = \log\cot\frac{h}{2}$

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$B_2 = \log\sin\frac{D}{2}$ $B_1 + B_2 + B_3 = B_4 \to \beta$ 弧度—時 換算表次頁ニアリ

h	$A_3=B_3$		h	$A_3=B_3$		h	$A_3=B$		h	$A_3=B_3$		h	$A_3=B_3$	
h m			h m			h m			h m			h m		
2 0	0.572	22 0	3 0	0.383	21 0	4 0	0.239	20 0	5 0	0.115	19 0	6 0	0.000	18 0
1	0.568	59	1	0.380	59	1	0.236	59	1	0.113	59	1	9.998	59
2	0.564	58	2	0.377	58	2	0.234	58	2	0.111	58	2	9.996	58
3	0.561	57	3	0.375	57	3	0.232	57	3	0.109	57	3	9.994	57
4	0.557	56	4	0.372	56	4	0.230	56	4	0.107	56	4	9.992	56
5	0.553	55	5	0.370	55	5	0.228	55	5	0.105	55	5	9.991	55
6	0.550	54	6	0.367	54	6	0.226	54	6	0.103	54	6	9.989	54
7	0.546	53	7	0.364	53	7	0.223	53	7	0.101	53	7	9.987	53
8	0.543	52	8	0.362	52	8	0.221	52	8	0.099	52	8	9.985	52
9	0.539	51	9	0.359	51	9	0.219	51	9	0.097	51	9	9.983	51
10	0.535	50	10	0.357	50	10	0.217	50	10	0.096	50	10	9.981	50
11	0.532	49	11	0.354	49	11	0.215	49	11	0.094	49	11	9.979	49
12	0.528	48	12	0.351	48	12	0.213	48	12	0.092	48	12	9.977	48
13	0.525	47	13	0.349	47	13	0.211	47	13	0.090	47	13	9.975	47
14	0.521	46	14	0.346	46	14	0.208	46	14	0.088	46	14	9.973	46
15	0.518	45	15	0.344	45	15	0.206	45	15	0.086	45	15	9.972	45
16	0.515	44	16	0.341	44	16	0.204	44	16	0.084	44	16	9.970	44
17	0.511	43	17	0.339	43	17	0.202	43	17	0.082	43	17	9.968	43
18	0.508	42	18	0.336	42	18	0.200	42	18	0.080	42	18	9.966	42
19	0.505	41	19	0.334	41	19	0.198	41	19	0.078	41	19	9.964	41
20	0.501	40	20	0.331	40	20	0.196	40	20	0.076	40	20	9.962	40
21	0.498	39	21	0.329	39	21	0.194	39	21	0.074	39	21	9.960	39
22	0.495	38	22	0.326	38	22	0.192	38	22	0.072	38	22	9.958	38
23	0.491	37	23	0.324	37	23	0.190	37	23	0.070	37	23	9.956	37
24	0.488	36	24	0.322	36	24	0.187	36	24	0.069	36	24	9.954	36
25	0.485	35	25	0.319	35	25	0.185	35	25	0.067	35	25	9.953	35
26	0.482	34	26	0.317	34	26	0.183	34	26	0.065	34	26	9.951	34
27	0.479	33	27	0.314	33	27	0.181	33	27	0.063	33	27	9.949	33
28	0.475	32	28	0.312	32	28	0.179	32	28	0.061	32	28	9.947	32
29	0.472	31	29	0.309	31	29	0.177	31	29	0.059	31	29	9.945	31
30	0.469	30	30	0.307	30	30	0.175	30	30	0.057	30	30	9.943	30
31	0.466	29	31	0.305	29	31	0.173	29	31	0.055	29	31	9.941	29
32	0.463	28	32	0.302	28	32	0.171	28	32	0.053	28	32	9.939	28
33	0.460	27	33	0.300	27	33	0.169	27	33	0.051	27	33	9.937	27
34	0.457	26	34	0.298	26	34	0.167	26	34	0.049	26	34	9.935	26
35	0.454	25	35	0.295	25	35	0.165	25	35	0.047	25	35	9.933	25
36	0.451	24	36	0.293	24	36	0.163	24	36	0.046	24	36	9.931	24
37	0.448	23	37	0.290	23	37	0.161	23	37	0.044	23	37	9.930	23
38	0.445	22	38	0.288	22	38	0.159	22	38	0.042	22	38	9.928	22
39	0.442	21	39	0.286	21	39	0.157	21	39	0.040	21	39	9.926	21
40	0.439	20	40	0.284	20	40	0.155	20	40	0.038	20	40	9.924	20
41	0.436	19	41	0.281	19	41	0.153	19	41	0.036	19	41	9.922	19
42	0.433	18	42	0.279	18	42	0.151	18	42	0.034	18	42	9.920	18
43	0.430	17	43	0.277	17	43	0.149	17	43	0.032	17	43	9.918	17
44	0.427	16	44	0.274	16	44	0.147	16	44	0.030	16	44	9.916	16
45	0.424	15	45	0.272	15	45	0.145	15	45	0.028	15	45	9.914	15
46	0.422	14	46	0.270	14	46	0.143	14	46	0.027	14	46	9.912	14
47	0.419	13	47	0.267	13	47	0.141	13	47	0.025	13	47	9.910	13
48	0.416	12	48	0.265	12	48	0.139	12	48	0.023	12	48	9.908	12
49	0.413	11	49	0.263	11	49	0.137	11	49	0.021	11	49	9.906	11
50	0.410	10	50	0.261	10	50	0.135	10	50	0.019	10	50	9.904	10
51	0.407	9	51	0.258	9	51	0.133	9	51	0.017	9	51	9.903	9
52	0.405	8	52	0.256	8	52	0.131	8	52	0.015	8	52	9.901	8
53	0.402	7	53	0.254	7	53	0.129	7	53	0.013	7	53	9.899	7
54	0.399	6	54	0.252	6	54	0.127	6	54	0.011	6	54	9.897	6
55	0.396	5	55	0.250	5	55	0.125	5	55	0.009	5	55	9.895	5
56	0.394	4	56	0.247	4	56	0.123	4	56	0.008	4	56	9.893	4
57	0.391	3	57	0.245	3	57	0.121	3	57	0.006	3	57	9.891	3
58	0.388	2	58	0.243	2	58	0.119	2	58	0.004	2	58	9.889	2
59	0.385	1	59	0.241	1	59	0.117	1	59	0.002	1	59	9.887	1
3 0	0.383	21 0	4 0	0.239	20 0	5 0	0.115	19 0	6 0	0.000	18 0	7 0	9.885	17 0
		h m			h m			h m			h m			h m
	$A_3=B_3$	h		$A_3=B_3$	h		$A_3=B_3$	h		$A_3=B_3$	h		$A_3=B_3$	h

°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°
h m	0h 40m	1h 20m	2h 0m	2h 40m	3h 20m	4h 0m	4h 40m	5h 20m	6h 0m	6h 40m	7h 20m	8h 0m
°	120°	130°	140°	150°	160°	170°	1°	2°	3°	4°	5°	6°	7°	8°	9°
h m	8h 0m	8h 40m	9h 20m	10h 0m	10h 40m	11h 20m	4m	8m	12m	16m	20m	24m	28m	32m	36m
′	10′	20	30′	40′	50′		1′	2′	3	4′	5′	6′	7′	8′	9′
m s	0m 40	1m 20s	2m 0s	2m 40s	3m 20s		4s	8s	12s	16s	20s	24s	28s	32s	36s

h	$A_3=B_3$		h	$A_3=B_3$		h	$A_3=B_3$		h	$A_3=B_3$		h	$A_3=B$	
h m			h m			h m			h m			h m		
7 0	9.885	17 0	8 0	9.761	16 0	9 0	9.617	15 0	10 0	9.428	14 0	11 0	9.119	13 0
1	9.883	59	1	9.759	59	1	9.615	59	1	9.424	59	1	9.112	59
2	9.881	58	2	9.757	58	2	9.612	58	2	9.420	58	2	9.105	58
3	9.879	57	3	9.755	57	3	9.609	57	3	9.417	57	3	9.097	57
4	9.877	56	4	9.753	56	4	9.606	56	4	9.413	56	4	9.089	56
5	9.875	55	5	9.750	55	5	9.604	55	5	9.409	55	5	9.081	55
6	9.873	54	6	9.748	54	6	9.601	54	6	9.405	54	6	9.073	54
7	9.871	53	7	9.746	53	7	9.598	53	7	9.401	53	7	9.065	53
8	9.869	52	8	9.744	52	8	9.595	52	8	9.397	52	8	9.057	52
9	9.867	51	9	9.742	51	9	9.593	51	9	9.393	51	9	9.048	51
10	9.865	50	10	9.739	50	10	9.590	50	10	9.389	50	10	9.039	50
11	9.863	49	11	9.737	49	11	9.587	49	11	9.385	49	11	9.031	49
12	9.861	48	12	9.735	48	12	9.584	48	12	9.380	48	12	9.022	48
13	9.859	47	13	9.733	47	13	9.581	47	13	9.376	47	13	9.012	47
14	9.857	46	14	9.730	46	14	9.578	46	14	9.372	46	14	9.003	46
15	9.855	45	15	9.728	45	15	9.576	45	15	9.368	45	15	8.993	45
16	9.853	44	16	9.726	44	16	9.573	44	16	9.363	44	16	8.984	44
17	9.851	43	17	9.723	43	17	9.570	43	17	9.359	43	17	8.974	43
18	9.849	42	18	9.721	42	18	9.567	42	18	9.355	42	18	8.963	42
19	9.847	41	19	9.719	41	19	9.564	41	19	9.350	41	19	8.953	41
20	9.845	40	20	9.716	40	20	9.561	40	20	9.346	40	20	8.942	40
21	9.843	39	21	9.714	39	21	9.558	39	21	9.341	39	21	8.931	39
22	9.841	38	22	9.712	38	22	9.555	38	22	9.337	38	22	8.920	38
23	9.839	37	23	9.710	37	23	9.552	37	23	9.332	37	23	8.908	37
24	9.837	36	24	9.707	36	24	9.549	36	24	9.327	36	24	8.896	36
25	9.835	35	25	9.705	35	25	9.546	35	25	9.323	35	25	8.884	35
26	9.833	34	26	9.702	34	26	9.543	34	26	9.318	34	26	8.871	34
27	9.831	33	27	9.700	33	27	9.540	33	27	9.313	33	27	8.858	33
28	9.829	32	28	9.698	32	28	9.537	32	28	9.308	32	28	8.845	32
29	9.827	31	29	9.695	31	29	9.534	31	29	9.304	31	29	8.831	31
30	9.825	30	30	9.693	30	30	9.531	30	30	9.299	30	30	8.817	30
31	9.823	29	31	9.691	29	31	9.528	29	31	9.294	29	31	8.802	29
32	9.821	28	32	9.688	28	32	9.525	28	32	9.289	28	32	8.786	28
33	9.819	27	33	9.686	27	33	9.521	27	33	9.284	27	33	8.771	27
34	9.817	26	34	9.683	26	34	9.518	26	34	9.278	26	34	8.754	26
35	9.815	25	35	9.681	25	35	9.515	25	35	9.273	25	35	8.737	25
36	9.813	24	36	9.678	24	36	9.512	24	36	9.268	24	36	8.719	24
37	9.810	23	37	9.676	23	37	9.509	23	37	9.263	23	37	8.701	23
38	9.808	22	38	9.674	22	38	9.505	22	38	9.257	22	38	8.682	22
39	9.806	21	39	9.671	21	39	9.502	21	39	9.252	21	39	8.661	21
40	9.804	20	40	9.669	20	40	9.499	20	40	9.246	20	40	8.640	20
41	9.802	19	41	9.666	19	41	9.495	19	41	9.241	19	41	8.618	19
42	9.800	18	42	9.664	18	42	9.492	18	42	9.235	18	42	8.594	18
43	9.798	17	43	9.661	17	43	9.489	17	43	9.229	17	43	8.569	17
44	9.796	16	44	9.659	16	44	9.485	16	44	9.224	16	44	8.543	16
45	9.794	15	45	9.656	15	45	9.482	15	45	9.218	15	45	8.515	15
46	9.792	14	46	9.654	14	46	9.479	14	46	9.212	14	46	8.485	14
47	9.789	13	47	9.651	13	47	9.475	13	47	9.206	13	47	8.453	13
48	9.787	12	48	9.649	12	48	9.472	12	48	9.200	12	48	8.418	12
49	9.785	11	49	9.646	11	49	9.468	11	49	9.194	11	49	8.380	11
50	9.783	10	50	9.643	10	50	9.465	10	50	9.187	10	50	8.339	10
51	9.781	9	51	9.641	9	51	9.461	9	51	9.181	9	51	8.293	9
52	9.779	8	52	9.638	8	52	9.457	8	52	9.174	8	52	8.242	8
53	9.777	7	53	9.636	7	53	9.454	7	53	9.168	7	53	8.184	7
54	9.774	6	54	9.633	6	54	9.450	6	54	9.161	6	54	8.117	6
55	9.772	5	55	9.630	5	55	9.447	5	55	9.155	5	55	8.038	5
56	9.770	4	56	9.628	4	56	9.443	4	56	9.148	4	56	7.941	4
57	9.768	3	57	9.625	3	57	9.439	3	57	9.141	3	57	7.816	3
58	9.766	2	58	9.623	2	58	9.436	2	58	9.134	2	58	7.640	2
59	9.764	1	59	9.620	1	59	9.432	1	59	9.127	1	59	7.339	1
8 0	9.761	16 0	9 0	9.617	15 0	10 0	9.428	14 0	11 0	9.119	13 0	12 0	$-\infty$	12 0
		h m			h m			h m			h m			h m
	$A_3=B_3$	h		$A_3=B_3$	h		$A_3=B_3$	h		$A_3=B_3$	h		$A_3=B_3$	h

°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°	110°	120°
h m	0h 40m	1h 20m	2h 0m	2h 40m	3h 20m	4h 0m	4h 40m	5h 20m	6h 0m	6h 40m	7h 20m	8h 0m
°	120°	130°	140°	150°	160°	170°	1°	2°	3°	4°	5°	6°	7°	8°	9°
h m	8h 0m	8h 40m	9h 20m	10h 0m	10h 40m	11h 20m	4m	8m	12m	16m	20m	24m	28m	32m	36m
′	10′	20′	30′	40′	50		1′	2′	3′	4	5′	6′	7′	8′	9′
m s	0m 40s	1m 20s	2m 0s	2m 40s	3m 20s		4s	8s	12s	16s	20s	24s	28s	32s	36s

A_4	α	A_4	α	A_4	α	A_4	α	A_4	α	A_4	α	A_4	α	A_4	α
B_4	β	B_4	β	B_4	β	B_4	β	B_4	β	B_4	β	B_4	β	B_4	β
−∞	0.0	8.719	3.0	9.200	9.0	9.428	15.0	9.584	21.0	9.707	27.0	9.813	33.0	9.908	39.0
6.941		8.734	.1	9.205	.1	9.431	.1	9.586	.1	9.709	.1	9.814	.1	9.910	.1
7.242	.1	8.747	.2	9.209	.2	9.434	.2	9.589	.2	9.711	.2	9.816	.2	9.911	.2
7.418		8.761	.3	9.214	.3	9.437	.3	9.591	.3	9.713	.3	9.817	.3	9.913	.3
7.543	.2	8.774	.4	9.219	.4	9.440	.4	9.593	.4	9.715	.4	9.819	.4	9.915	.4
7.640		8.786	.5	9.224	.5	9.443	.5	9.595	.5	9.716	.5	9.821	.5	9.916	.5
7.719	.3	8.799	.6	9.228	.6	9.446	.6	9.598	.6	9.718	.6	9.822	.6	9.918	.6
7.786		8.811	.7	9.233	.7	9.449	.7	9.600	.7	9.720	.7	9.824	.7	9.919	.7
7.844	.4	8.822	.8	9.237	.8	9.452	.8	9.602	.8	9.722	.8	9.826	.8	9.921	.8
7.895		8.834	.9	9.242	.9	9.455	.9	9.604	.9	9.724	.9	9.827	.9	9.922	.9
7.941	.5	8.845	4.0	9.246	10.0	9.457	16.0	9.606	22.0	9.726	28.0	9.829	34.0	9.924	40.0
7.982		8.855	.1	9.251	.1	9.460	.1	9.609	.1	9.728	.1	9.831	.1	9.925	.1
8.020	.6	8.866	.2	9.255	.2	9.463	.2	9.611	.2	9.729	.2	9.832	.2	9.927	.2
8.055		8.876	.3	9.259	.3	9.466	.3	9.613	.3	9.731	.3	9.834	.3	9.928	.3
8.087	.7	8.886	.4	9.264	.4	9.469	.4	9.615	.4	9.733	.4	9.836	.4	9.930	.4
8.117		8.896	.5	9.268	.5	9.472	.5	9.617	.5	9.735	.5	9.837	.5	9.931	.5
8.145	.8	8.906	.6	9.272	.6	9.474	.6	9.619	.6	9.737	.6	9.839	.6	9.933	.6
8.171		8.915	.7	9.276	.7	9.477	.7	9.621	.7	9.738	.7	9.840	.7	9.935	.7
8.196	.9	8.924	.8	9.280	.8	9.480	.8	9.624	.8	9.740	.8	9.842	.8	9.936	.8
8.220		8.933	.9	9.285	.9	9.483	.9	9.626	.9	9.742	.9	9.844	.9	9.938	.9
8.242	1.0	8.942	5.0	9.289	11.0	9.485	17.0	9.628	23.0	9.744	29.0	9.845	35.0	9.939	41.0
8.263		8.951	.1	9.293	.1	9.488	.1	9.630	.1	9.746	.1	9.847	.1	9.941	.1
8.283	.1	8.959	.2	9.297	.2	9.491	.2	9.632	.2	9.747	.2	9.848	.2	9.942	.2
8.303		8.967	.3	9.301	.3	9.493	.3	9.634	.3	9.749	.3	9.850	.3	9.944	.3
8.321	.2	8.976	.4	9.305	.4	9.496	.4	9.636	.4	9.751	.4	9.852	.4	9.945	.4
8.339		8.984	.5	9.308	.5	9.499	.5	9.638	.5	9.753	.5	9.853	.5	9.947	.5
8.356	.3	8.991	.6	9.312	.6	9.501	.6	9.640	.6	9.754	.6	9.855	.6	9.948	.6
8.372		8.999	.7	9.316	.7	9.504	.7	9.642	.7	9.756	.7	9.856	.7	9.950	.7
8.388	.4	9.007	.8	9.320	.8	9.507	.8	9.644	.8	9.758	.8	9.858	.8	9.951	.8
8.403		9.014	.9	9.324	.9	9.509	.9	9.647	.9	9.760	.9	9.860	.9	9.953	.9
8.418	.5	9.022	6.0	9.327	12.0	9.512	18.0	9.649	24.0	9.761	30.0	9.861	36.0	9.954	42.0
8.432		9.029	.1	9.331	.1	9.514	.1	9.651	.1	9.763	.1	9.863	.1	9.956	.1
8.446	.6	9.036	.2	9.335	.2	9.517	.2	9.653	.2	9.765	.2	9.864	.2	9.957	.2
8.459		9.043	.3	9.339	.3	9.519	.3	9.655	.3	9.767	.3	9.866	.3	9.959	.3
8.472	.7	9.050	.4	9.342	.4	9.522	.4	9.657	.4	9.768	.4	9.868	.4	9.961	.4
8.485		9.057	.5	9.346	.5	9.525	.5	9.659	.5	9.770	.5	9.869	.5	9.962	.5
8.497	.8	9.063	.6	9.349	.6	9.527	.6	9.661	.6	9.772	.6	9.871	.6	9.964	.6
8.509		9.070	.7	9.353	.7	9.530	.7	9.663	.7	9.774	.7	9.872	.7	9.965	.7
8.521	.9	9.076	.8	9.356	.8	9.532	.8	9.665	.8	9.775	.8	9.874	.8	9.967	.8
8.532		9.083	.9	9.360	.9	9.535	.9	9.667	.9	9.777	.9	9.876	.9	9.968	.9
8.543	2.0	9.089	7.0	9.363	13.0	9.537	19.0	9.669	25.0	9.779	31.0	9.877	37.0	9.970	43.0
8.554		9.095	.1	9.367	.1	9.539	.1	9.671	.1	9.780	.1	9.879	.1	9.971	.1
8.564	.1	9.102	.2	9.370	.2	9.542	.2	9.673	.2	9.782	.2	9.880	.2	9.973	.2
8.575		9.108	.3	9.374	.3	9.544	.3	9.675	.3	9.784	.3	9.882	.3	9.974	.3
8.585	.2	9.114	.4	9.377	.4	9.547	.4	9.677	.4	9.786	.4	9.883	.4	9.976	.4
8.594		9.119	.5	9.380	.5	9.549	.5	9.678	.5	9.787	.5	9.885	.5	9.977	.5
8.604	.3	9.125	.6	9.384	.6	9.552	.6	9.680	.6	9.789	.6	9.887	.6	9.979	.6
8.613		9.131	.7	9.387	.7	9.554	.7	9.682	.7	9.791	.7	9.888	.7	9.980	.7
8.622	.4	9.137	.8	9.390	.8	9.556	.8	9.684	.8	9.792	.8	9.890	.8	9.982	.8
8.631		9.142	.9	9.394	.9	9.559	.9	9.686	.9	9.794	.9	9.891	.9	9.983	.9
8.640	.5	9.148	8.0	9.397	14.0	9.561	20.0	9.688	26.0	9.796	32.0	9.893	38.0	9.985	44.0
8.649		9.153	.1	9.400	.1	9.563	.1	9.690	.1	9.797	.1	9.894	.1	9.986	.1
8.657	.6	9.159	.2	9.403	.2	9.566	.2	9.692	.2	9.799	.2	9.896	.2	9.988	.2
8.665		9.164	.3	9.406	.3	9.568	.3	9.694	.3	9.801	.3	9.897	.3	9.989	.3
8.674	.7	9.169	.4	9.410	.4	9.570	.4	9.696	.4	9.803	.4	9.899	.4	9.991	.4
8.682		9.174	.5	9.413	.5	9.573	.5	9.698	.5	9.804	.5	9.901	.5	9.992	.5
8.689	.8	9.180	.6	9.416	.6	9.575	.6	9.700	.6	9.806	.6	9.902	.6	9.994	.6
8.697		9.185	.7	9.419	.7	9.577	.7	9.702	.7	9.808	.7	9.904	.7	9.995	.7
8.705	.9	9.190	.8	9.422	.8	9.580	.8	9.703	.8	9.809	.8	9.905	.8	9.997	.8
8.712		9.195	.9	9.425	.9	9.582	.9	9.705	.9	9.811	.9	9.907	.9	9.998	.9
8.719	3.0	9.200	9.0	9.428	15.0	9.584	21.0	9.707	27.0	9.813	33.0	9.908	39.0	0.000	45.0

方位角 Z ハ緯度 N. (S.) ナラバ N. (S.) ヨリ東西ニ各 180° 迄ニ表ハサル、時角 $\begin{matrix}0^h — 12^h \\ 12^h — 24^h\end{matrix}$ ナラバ $\begin{matrix}W. \\ E.\end{matrix}$

結果

$l > d$ ナルトキ	l, d 同名異名ニ係ハラズ	$Z = \alpha + \beta$
$d > l$ ニシテ	l, d ガ 同名ナルトキ	$Z = \alpha - \beta$
	l, d ガ 異名ナルトキ	$Z = 180° - (\alpha - \beta)$

A_4	α	A_4	α	A_4	α	A_4	α	A_4	α	A_4	α	A_4	α	A_4	α
B_4	β	B_4	β	B_4	β	B_4	β	B_4	β	B_4	β	B_4	β	B_4	β
0.000	45.0	0.092	51.0	0.187	57.0	0.293	63.0	0.416	69.0	0.572	75.0	0.800	81.0	1.281	87.0
0.002	.1	0.093	.1	0.189	.1	0.295	.1	0.418	.1	0.575	.1	0.805	.1	1.288	
0.003	.2	0.095	.2	0.191	.2	0.297	.2	0.420	.2	0.578	.2	0.810	.2	1.295	.1
0.005	.3	0.096	.3	0.192	.3	0.298	.3	0.423	.3	0.581	.3	0.815	.3	1.303	
0.006	.4	0.098	.4	0.194	.4	0.300	.4	0.425	.4	0.584	.4	0.820	.4	1.311	.2
0.008	.5	0.099	.5	0.196	.5	0.302	.5	0.427	.5	0.587	.5	0.826	.5	1.318	
0.009	.6	0.101	.6	0.197	.6	0.304	.6	0.430	.6	0.590	.6	0.831	.6	1.326	.3
0.011	.7	0.103	.7	0.199	.7	0.306	.7	0.432	.7	0.594	.7	0.836	.7	1.335	
0.012	.8	0.104	.8	0.201	.8	0.308	.8	0.434	.8	0.597	.8	0.841	.8	1.343	.4
0.014	.9	0.106	.9	0.203	.9	0.310	.9	0.437	.9	0.600	.9	0.847	.9	1.351	
0.015	46.0	0.107	52.0	0.204	58.0	0.312	64.0	0.439	70.0	0.603	76.0	0.852	82.0	1.360	.5
0.017	.1	0.109	.1	0.206	.1	0.314	.1	0.441	.1	0.606	.1	0.858	.1	1.369	
0.018	.2	0.110	.2	0.208	.2	0.316	.2	0.444	.2	0.610	.2	0.863	.2	1.378	.6
0.020	.3	0.112	.3	0.209	.3	0.318	.3	0.446	.3	0.613	.3	0.869	.3	1.387	
0.021	.4	0.113	.4	0.211	.4	0.320	.4	0.448	.4	0.616	.4	0.875	.4	1.396	.7
0.023	.5	0.115	.5	0.213	.5	0.322	.5	0.451	.5	0.620	.5	0.881	.5	1.406	
0.024	.6	0.117	.6	0.214	.6	0.323	.6	0.453	.6	0.623	.6	0.886	.6	1.415	.8
0.026	.7	0.118	.7	0.216	.7	0.325	.7	0.456	.7	0.626	.7	0.892	.7	1.425	
0.027	.8	0.120	.8	0.218	.8	0.327	.8	0.458	.8	0.630	.8	0.898	.8	1.436	.9
0.029	.9	0.121	.9	0.220	.9	0.329	.9	0.461	.9	0.633	.9	0.905	.9	1.446	
0.030	47.0	0.123	53.0	0.221	59.0	0.331	65.0	0.463	71.0	0.637	77.0	0.911	83.0	1.457	88.0
0.032	.1	0.124	.1	0.223	.1	0.333	.1	0.465	.1	0.640	.1	0.917	.1	1.468	
0.033	.2	0.126	.2	0.225	.2	0.335	.2	0.468	.2	0.644	.2	0.924	.2	1.479	.1
0.035	.3	0.128	.3	0.226	.3	0.337	.3	0.470	.3	0.647	.3	0.930	.3	1.491	
0.036	.4	0.129	.4	0.228	.4	0.339	.4	0.473	.4	0.651	.4	0.937	.4	1.503	.2
0.038	.5	0.131	.5	0.230	.5	0.341	.5	0.475	.5	0.654	.5	0.943	.5	1.515	
0.039	.6	0.132	.6	0.232	.6	0.343	.6	0.478	.6	0.658	.6	0.950	.6	1.528	.3
0.041	.7	0.134	.7	0.233	.7	0.345	.7	0.481	.7	0.661	.7	0.957	.7	1.541	
0.043	.8	0.136	.8	0.235	.8	0.347	.8	0.483	.8	0.665	.8	0.964	.8	1.554	.4
0.044	.9	0.137	.9	0.237	.9	0.349	.9	0.486	.9	0.669	.9	0.971	.9	1.568	
0.046	48.0	0.139	54.0	0.239	60.0	0.351	66.0	0.488	72.0	0.673	78.0	0.978	84.0	1.582	.5
0.047	.1	0.140	.1	0.240	.1	0.353	.1	0.491	.1	0.676	.1	0.986	.1	1.597	
0.049	.2	0.142	.2	0.242	.2	0.356	.2	0.493	.2	0.680	.2	0.993	.2	1.612	.6
0.050	.3	0.144	.3	0.244	.3	0.358	.3	0.496	.3	0.684	.3	1.001	.3	1.628	
0.052	.4	0.145	.4	0.246	.4	0.360	.4	0.499	.4	0.688	.4	1.009	.4	1.644	.7
0.053	.5	0.147	.5	0.247	.5	0.362	.5	0.501	.5	0.692	.5	1.016	.5	1.661	
0.055	.6	0.148	.6	0.249	.6	0.364	.6	0.504	.6	0.695	.6	1.024	.6	1.679	.8
0.056	.7	0.150	.7	0.251	.7	0.366	.7	0.507	.7	0.699	.7	1.033	.7	1.697	
0.058	.8	0.152	.8	0.253	.8	0.368	.8	0.509	.8	0.703	.8	1.041	.8	1.717	.9
0.059	.9	0.153	.9	0.254	.9	0.370	.9	0.512	.9	0.707	.9	1.049	.9	1.737	
0.061	49.0	0.155	55.0	0.256	61.0	0.372	67.0	0.515	73.0	0.711	79.0	1.058	85.0	1.758	89.0
0.062	.1	0.156	.1	0.258	.1	0.374	.1	0.517	.1	0.715	.1	1.067	.1	1.780	
0.064	.2	0.158	.2	0.260	.2	0.376	.2	0.520	.2	0.720	.2	1.076	.2	1.804	.1
0.065	.3	0.160	.3	0.262	.3	0.379	.3	0.523	.3	0.724	.3	1.085	.3	1.829	
0.067	.4	0.161	.4	0.263	.4	0.381	.4	0.526	.4	0.728	.4	1.094	.4	1.855	.2
0.069	.5	0.163	.5	0.265	.5	0.383	.5	0.528	.5	0.732	.5	1.104	.5	1.883	
0.070	.6	0.164	.6	0.267	.6	0.385	.6	0.531	.6	0.736	.6	1.114	.6	1.913	.3
0.072	.7	0.166	.7	0.269	.7	0.387	.7	0.534	.7	0.741	.7	1.124	.7	1.945	
0.073	.8	0.168	.8	0.271	.8	0.389	.8	0.537	.8	0.745	.8	1.134	.8	1.980	.4
0.075	.9	0.169	.9	0.272	.9	0.391	.9	0.540	.9	0.749	.9	1.145	.9	2.018	
0.076	50.0	0.171	56.0	0.274	62.0	0.394	68.0	0.543	74.0	0.754	80.0	1.155	86.0	2.059	.5
0.078	.1	0.173	.1	0.276	.1	0.396	.1	0.545	.1	0.758	.1	1.166	.1	2.105	
0.079	.2	0.174	.2	0.278	.2	0.398	.2	0.548	.2	0.763	.2	1.178	.2	2.156	.6
0.081	.3	0.176	.3	0.280	.3	0.400	.3	0.551	.3	0.767	.3	1.189	.3	2.214	
0.082	.4	0.178	.4	0.282	.4	0.402	.4	0.554	.4	0.772	.4	1.201	.4	2.281	.7
0.084	.5	0.179	.5	0.284	.5	0.405	.5	0.557	.5	0.776	.5	1.214	.5	2.360	
0.085	.6	0.181	.6	0.285	.6	0.407	.6	0.560	.6	0.781	.6	1.226	.6	2.457	.8
0.087	.7	0.183	.7	0.287	.7	0.409	.7	0.563	.7	0.786	.7	1.239	.7	2.582	
0.089	.8	0.184	.8	0.289	.8	0.411	.8	0.566	.8	0.791	.8	1.253	.8	2.758	.9
0.090	.9	0.186	.9	0.291	.9	0.414	.9	0.569	.9	0.795	.9	1.266	.9	3.059	
0.092	51.0	0.187	57.0	0.293	63.0	0.416	69.0	0.572	75.0	0.800	81.0	1.281	87.0	+∞	90.0

方位角 Z ハ緯度 N. (S.) ナラバ N. (S.) ヨリ東西ニ各 180° 迄ニ表ハサル。時角 $\begin{matrix}0^h — 12^h \\ 12^h — 24^h\end{matrix}$ ナラバ $\begin{matrix}W. \\ E.\end{matrix}$

結果

$l > d$ ナルトキ	l, d 同名異名ニ拘ラズ	$Z = \alpha + \beta$
$d > l$ ニシテ	l, d ガ 同名ナルトキ	$Z = \alpha - \beta$
	l, d ガ 異名ナルトキ	$Z = 180° - (\alpha - \beta)$

時間＼速力(浬)	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
時	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
2	12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	48
3	18	21	24	27	30	33	36	39	42	45	48	51	54	57	60	63	66	69	72
4	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80	84	88	92	96
5	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120
6	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120	126	132	138	144
7	42	49	56	63	70	77	84	91	98	105	112	119	126	133	140	147	154	161	168
8	48	56	64	72	80	88	96	104	112	120	128	136	144	152	160	168	176	184	192
9	54	63	72	81	90	99	108	117	126	135	144	153	162	171	180	189	198	207	216
10	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240
11	66	77	88	99	110	121	132	143	154	165	176	187	198	209	220	231	242	253	264
12	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240	252	264	276	288
13	78	91	104	117	130	143	156	169	182	195	208	221	234	247	260	273	286	299	312
14	84	98	112	126	140	154	168	182	196	210	224	238	252	266	280	294	308	322	336
15	90	105	120	135	150	165	180	195	210	225	240	255	270	285	300	315	330	345	360
16	96	112	128	144	160	176	192	208	224	240	256	272	288	304	320	336	352	368	384
17	102	119	136	153	170	187	204	221	238	255	272	289	306	323	340	357	374	391	408
18	108	126	144	162	180	198	216	234	252	270	288	306	324	342	360	378	396	414	432
19	114	133	152	171	190	209	228	247	266	285	304	323	342	361	380	399	418	437	456
20	120	140	160	180	200	220	240	260	280	300	320	340	360	380	400	420	440	460	480
21	126	147	168	189	210	231	252	273	294	315	336	357	378	399	420	441	462	483	504
22	132	154	176	198	220	242	264	286	308	330	352	374	396	418	440	462	484	506	528
23	138	161	184	207	230	253	276	299	322	345	368	391	414	437	460	483	506	529	552
24	144	168	192	216	240	264	288	312	336	360	384	408	432	456	480	504	528	552	576
分	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4
2	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.8
3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	1.2
4	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.2	1.3	1.3	1.4	1.5	1.5	1.6
5	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.2	1.3	1.3	1.4	1.5	1.6	1.7	1.8	1.8	1.9	2.0
6	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4
7	0.7	0.8	0.9	1.1	1.2	1.3	1.4	1.5	1.6	1.8	1.9	2.0	2.1	2.2	2.3	2.5	2.6	2.7	2.8
8	0.8	0.9	1.1	1.2	1.3	1.5	1.6	1.7	1.9	2.0	2.1	2.3	2.4	2.5	2.7	2.8	2.9	3.1	3.2
9	0.9	1.1	1.2	1.4	1.5	1.7	1.8	2.0	2.1	2.3	2.4	2.6	2.7	2.9	3.0	3.2	3.3	3.5	3.6
10	1.0	1.2	1.3	1.5	1.7	1.8	2.0	2.2	2.3	2.5	2.7	2.8	3.0	3.2	3.3	3.5	3.7	3.8	4.0
20	2.0	2.3	2.7	3.0	3.3	3.7	4.0	4.3	4.7	5.0	5.3	5.7	6.0	6.3	6.7	7.0	7.3	7.7	8.0
30	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0
40	4.0	4.7	5.3	6.0	6.7	7.3	8.0	8.7	9.3	10.0	10.7	11.3	12.0	12.7	13.3	14.0	14.7	15.3	16.0
50	5.0	5.8	6.7	7.5	8.3	9.2	10.0	10.8	11.7	12.5	13.3	14.2	15.0	15.8	16.7	17.5	18.3	19.2	20.0
60	6.0	7.0	8.0	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0
日	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	144	168	192	216	240	264	288	312	336	360	384	408	432	456	480	504	528	552	576
2	288	336	384	432	480	528	576	624	672	720	768	816	864	912	960	1008	1056	1104	1152
3	432	504	576	648	720	792	864	936	1008	1080	1152	1224	1296	1368	1440	1512	1584	1656	1728
4	576	672	768	864	960	1056	1152	1248	1344	1440	1536	1632	1728	1824	1920	2016	2112	2208	2304
5	720	840	960	1080	1200	1320	1440	1560	1680	1800	1920	2040	2160	2280	2400	2520	2640	2760	2880
6	864	1008	1152	1296	1440	1584	1728	1872	2016	2160	2304	2448	2592	2736	2880	3024	3168	3312	3456
7	1008	1176	1344	1512	1680	1848	2016	2184	2352	2520	2688	2856	3024	3192	3360	3528	3696	3864	4032
8	1152	1344	1536	1728	1920	2112	2304	2496	2688	2880	3072	3264	3456	3648	3840	4032	4224	4416	4608
9	1296	1512	1728	1944	2160	2376	2592	2808	3024	3240	3456	3672	3888	4104	4320	4536	4752	4968	5184
10	1440	1680	1920	2160	2400	2640	2880	3120	3360	3600	3840	4080	4320	4560	4800	5040	5280	5520	5760

時間＼速力(浬)	25	26	27	28	29	30	31	32	33	34	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
時	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	25	26	27	28	29	30	31	32	33	34	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
2	50	52	54	56	58	60	62	64	66	68	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8
3	75	78	81	84	87	90	93	96	99	102	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.7
4	100	104	108	112	116	120	124	128	132	136	0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6
5	125	130	135	140	145	150	155	160	165	170	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5
6	150	156	162	168	174	180	186	192	198	204	0.6	1.2	1.8	2.4	3.0	3.6	4.2	4.8	5.4
7	175	182	189	196	203	210	217	224	231	238	0.7	1.4	2.1	2.8	3.5	4.2	4.9	5.6	6.3
8	200	208	216	224	232	240	248	256	264	272	0.8	1.6	2.4	3.2	4.0	4.8	5.6	6.4	7.2
9	225	234	243	252	261	270	279	288	297	306	0.9	1.8	2.7	3.6	4.5	5.4	6.3	7.2	8.1
10	250	260	270	280	290	300	310	320	330	340	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
11	275	286	297	308	319	330	341	352	363	374	1.1	2.2	3.3	4.4	5.5	6.6	7.7	8.8	9.9
12	300	312	324	336	348	360	372	384	396	408	1.2	2.4	3.6	4.8	6.0	7.2	8.4	9.6	10.8
13	325	338	351	364	377	390	403	416	429	442	1.3	2.6	3.9	5.2	6.5	7.8	9.1	10.4	11.7
14	350	364	378	392	406	420	434	448	462	476	1.4	2.8	4.2	5.6	7.0	8.4	9.8	11.2	12.6
15	375	390	405	420	435	450	465	480	495	510	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5
16	400	416	432	448	464	480	496	512	528	544	1.6	3.2	4.8	6.4	8.0	9.6	11.2	12.8	14.4
17	425	442	459	476	493	510	527	544	561	578	1.7	3.4	5.1	6.8	8.5	10.2	11.9	13.6	15.3
18	450	468	486	504	522	540	558	576	594	612	1.8	3.6	5.4	7.2	9.0	10.8	12.6	14.4	16.2
19	475	494	513	532	551	570	589	608	627	646	1.9	3.8	5.7	7.6	9.5	11.4	13.3	15.2	17.1
20	500	520	540	560	580	600	620	640	660	680	2.0	4.0	6.0	8.0	10.0	12.0	14.0	16.0	18.0
21	525	546	567	588	609	630	651	672	693	714	2.1	4.2	6.3	8.4	10.5	12.6	14.7	16.8	18.9
22	550	572	594	616	638	660	682	704	726	748	2.2	4.4	6.6	8.8	11.0	13.2	15.4	17.6	19.8
23	575	598	621	644	667	690	713	736	759	782	2.3	4.6	6.9	9.2	11.5	13.8	16.1	18.4	20.7
24	600	624	648	672	696	720	744	768	792	816	2.4	4.8	7.2	9.6	12.0	14.4	16.8	19.2	21.6
分	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.8	0.9	0.9	0.9	1.0	1.0	1.0	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	1.3	1.3	1.4	1.4	1.5	1.5	1.6	1.6	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	1.7	1.7	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
5	2.1	2.2	2.3	2.3	2.4	2.5	2.6	2.7	2.8	2.8	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
6	2.5	2.6	2.7	2.8	2.9	3.0	3.1	3.2	3.3	3.4	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
7	2.9	3.0	3.2	3.3	3.4	3.5	3.6	3.7	3.9	4.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
8	3.3	3.5	3.6	3.7	3.9	4.0	4.1	4.3	4.4	4.5	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
9	3.8	3.9	4.1	4.2	4.4	4.5	4.7	4.8	5.0	5.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
10	4.2	4.3	4.5	4.7	4.8	5.0	5.2	5.3	5.5	5.7	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2
20	8.3	8.7	9.0	9.3	9.7	10.0	10.3	10.7	11.0	11.3	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3
30	12.5	13.0	13.5	14.0	14.5	15.0	15.5	16.0	16.5	17.0	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.4	0.5
40	16.7	17.3	18.0	18.7	19.3	20.0	20.7	21.3	22.0	22.7	0.1	0.1	0.2	0.3	0.3	0.4	0.5	0.5	0.6
50	20.8	21.7	22.5	23.3	24.2	25.0	25.8	26.7	27.5	28.3	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8
60	25.0	26.0	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
日	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
1	600	624	648	672	696	720	744	768	792	816	2.4	4.8	7.2	9.6	12.0	14.4	16.8	19.2	21.6
2	1200	1248	1296	1344	1392	1440	1488	1536	1584	1632	4.8	9.6	14.4	19.2	24.0	28.8	33.6	38.4	43.2
3	1800	1872	1944	2016	2088	2160	2232	2304	2376	2448	7.2	14.4	21.6	28.8	36.0	43.2	50.4	57.6	64.8
4	2400	2496	2592	2688	2784	2880	2976	3072	3168	3264	9.6	19.2	28.8	38.4	48.0	57.6	67.2	76.8	86.4
5	3000	3120	3240	3360	3480	3600	3720	3840	3960	4080	12.0	24.0	36.0	48.0	60.0	72.0	84.0	96.0	108.0
6	3600	3744	3888	4032	4176	4320	4464	4608	4752	4896	14.4	28.8	43.2	57.6	72.0	86.4	100.8	115.2	129.6
7	4200	4368	4536	4704	4872	5040	5208	5376	5544	5712	16.8	33.6	50.4	67.2	84.0	100.8	117.6	134.4	151.2
8	4800	4992	5184	5376	5568	5760	5952	6144	6336	6528	19.2	38.4	57.6	76.8	96.0	115.2	134.4	153.6	172.8
9	5400	5616	5832	6048	6264	6480	6696	6912	7128	7344	21.6	43.2	64.8	86.4	108.0	129.6	151.2	172.8	194.4
10	6000	6240	6480	6720	6960	7200	7440	7680	7920	8160	24.0	48.0	72.0	96.0	120.0	144.0	168.0	192.0	216.0

時間＼速力(節)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
秒	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
1	0.5	1.0	1.5	2.1	2.6	3.1	3.6	4.1	4.6	5.1	5.7	6.2	6.7	7.2	7.7	8.2	8.7
2	1.0	2.1	3.1	4.1	5.1	6.2	7.2	8.2	9.3	10.3	11.3	12.3	13.4	14.4	15.4	16.5	17.5
3	1.5	3.1	4.6	6.2	7.7	9.3	10.8	12.3	13.9	15.4	17.0	18.5	20.1	21.6	23.2	24.7	26.2
4	2.1	4.1	6.2	8.2	10.3	12.3	14.4	16.5	18.5	20.6	22.6	24.7	26.8	28.8	30.9	32.9	35.0
分 5	2.6	5.1	7.7	10.3	12.9	15.4	18.0	20.6	23.2	25.7	28.3	30.9	33.4	36.0	38.6	41.2	43.7
(0.1) 6	3.1	6.2	9.3	12.3	15.4	18.5	21.6	24.7	27.8	30.9	34.0	37.0	40.1	43.2	46.3	49.4	52.5
7	3.6	7.2	10.8	14.4	18.0	21.6	25.2	28.8	32.4	36.0	39.6	43.2	46.8	50.4	54.0	57.6	61.2
8	4.1	8.2	12.3	16.5	20.6	24.7	28.8	32.9	37.0	41.2	45.3	49.4	53.5	57.6	61.7	65.8	70.0
9	4.6	9.3	13.9	18.5	23.2	27.8	32.4	37.0	41.7	46.3	50.9	55.6	60.2	64.8	69.5	74.1	78.7
10	5.1	10.3	15.4	20.6	25.7	30.9	36.0	41.2	46.3	51.4	56.6	61.7	66.9	72.0	77.2	82.3	87.5
11	5.7	11.3	17.0	22.6	28.3	34.0	39.6	45.3	50.9	56.6	62.2	67.9	73.6	79.2	84.9	90.5	96.2
(0.2) 12	6.2	12.3	18.5	24.7	30.9	37.0	43.2	49.4	55.6	61.7	67.9	74.1	80.3	86.4	92.6	98.8	105
13	6.7	13.4	20.1	26.8	33.4	40.1	46.8	53.5	60.2	66.9	73.6	80.3	86.9	93.6	100	107	114
14	7.2	14.4	21.6	28.8	36.0	43.2	50.4	57.6	64.8	72.0	79.2	86.4	93.6	101	108	115	122
15	7.7	15.4	23.2	30.9	38.6	46.3	54.0	61.7	69.5	77.2	84.9	92.6	100	108	116	123	131
16	8.2	16.5	24.7	32.9	41.2	49.4	57.6	65.8	74.1	82.3	90.5	98.8	107	115	123	132	140
17	8.7	17.5	26.2	35.0	43.7	52.5	61.2	70.0	78.7	87.5	96.2	105	114	122	131	140	149
(0.3) 18	9.3	18.5	27.8	37.0	46.3	55.6	64.8	74.1	83.3	92.6	102	111	120	130	139	148	157
19	9.8	19.5	29.3	39.1	48.9	58.6	68.4	78.2	88.0	97.7	108	117	127	137	147	156	166
20	10.3	20.6	30.9	41.2	51.4	61.7	72.0	82.3	92.6	103	113	123	134	144	154	165	175
21	10.8	21.6	32.4	43.2	54.0	64.8	75.6	86.4	97.2	108	119	130	140	151	162	173	184
22	11.3	22.6	34.0	45.3	56.6	67.9	79.2	90.5	102	113	124	136	147	158	170	181	192
23	11.8	23.7	35.5	47.3	59.2	71.0	82.8	94.7	106	118	130	142	154	166	177	189	201
(0.4) 24	12.3	24.7	37.0	49.4	61.7	74.1	86.4	98.8	111	123	136	148	161	173	185	198	210
25	12.9	25.7	38.6	51.4	64.3	77.2	90.0	103	116	129	141	154	167	180	193	206	219
26	13.4	26.8	40.1	53.5	66.9	80.3	93.6	107	120	134	147	161	174	187	201	214	227
27	13.9	27.8	41.7	55.6	69.5	83.3	97.2	111	125	139	153	167	181	194	208	222	236
28	14.4	28.8	43.2	57.6	72.0	86.4	101	115	130	144	158	173	187	202	216	230	245
29	14.9	29.8	44.8	59.7	74.6	89.5	104	119	134	149	164	179	194	209	224	239	254
(0.5) 30	15.4	30.9	46.3	61.7	77.2	92.6	108	123	139	154	170	185	201	216	232	247	262
31	15.9	31.9	47.8	63.8	79.7	95.7	112	128	144	159	175	191	207	223	239	255	271
32	16.5	32.9	49.4	65.8	82.3	98.8	115	132	148	165	181	198	214	230	247	263	280
33	17.0	34.0	50.9	67.9	84.9	102	119	136	153	170	187	204	221	238	255	272	289
34	17.5	35.0	52.5	70.0	87.5	105	122	140	157	175	192	210	227	245	262	280	297
35	18.0	36.0	54.0	72.0	90.0	108	126	144	162	180	198	216	234	252	270	288	306
(0.6) 36	18.5	37.0	55.6	74.1	92.6	111	130	148	167	185	204	222	241	259	278	296	315
37	19.0	38.1	57.1	76.1	95.2	114	133	152	171	190	209	228	247	266	286	305	324
38	19.5	39.1	58.6	78.2	97.7	117	137	156	176	195	215	235	254	274	293	313	332
39	20.1	40.1	60.2	80.3	100	120	140	161	181	201	221	241	261	281	301	321	341
40	20.6	41.2	61.7	82.3	103	123	144	165	185	206	226	247	268	288	309	329	350
41	21.1	42.2	63.3	84.4	105	127	148	169	190	211	232	253	274	295	316	337	359
(0.7) 42	21.6	43.2	64.8	86.4	108	130	151	173	194	216	238	259	281	302	324	346	367
43	22.1	44.2	66.4	88.5	111	133	155	177	199	221	243	265	288	310	332	354	376
44	22.6	45.3	67.9	90.5	113	136	158	181	204	226	249	272	294	317	340	362	385
45	23.2	46.3	69.5	92.6	116	139	162	185	208	232	255	278	301	324	347	370	394
46	23.7	47.3	71.0	94.7	118	142	166	189	213	237	260	284	308	331	355	379	402
47	24.2	48.4	72.5	96.7	121	145	169	193	218	242	266	290	314	339	363	387	411
(0.8) 48	24.7	49.4	74.1	98.8	123	148	173	198	222	247	272	296	321	346	370	395	420
49	25.2	50.4	75.6	101	126	151	176	202	227	252	277	302	328	353	378	403	429
50	25.7	51.4	77.2	103	129	154	180	206	232	257	283	309	334	360	386	412	437
) 51	26.2	52.5	78.7	105	131	157	184	210	236	262	289	315	341	367	394	420	446
52	26.8	53.5	80.3	107	134	161	187	214	241	268	294	321	348	375	401	428	455
53	27.3	54.5	81.8	109	136	164	191	218	245	273	300	327	354	382	409	436	464
(0.9) 54	27.8	55.6	83.3	111	139	167	194	222	250	278	306	333	361	389	417	444	472
55	28.3	56.6	84.9	113	141	170	198	226	255	283	311	340	368	396	424	453	481
56	28.8	57.6	86.4	115	144	173	202	230	259	288	317	346	375	403	432	461	490
57	29.3	58.6	88.0	117	147	176	205	235	264	293	323	352	381	411	440	469	498
58	29.8	59.7	89.5	119	149	179	209	239	269	298	328	358	388	418	448	477	507
分 59	30.4	60.7	91.1	121	152	182	212	243	273	304	334	364	395	425	455	486	516
(1.0) 60	30.9	61.7	92.6	123	154	185	216	247	278	309	340	370	401	432	403	494	525

時間＼速力(節)	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
秒	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
1	9.3	9.8	10.3	10.8	11.3	11.8	12.3	12.9	13.4	13.9	14.4	14.9	15.4	15.9	16.5	17.0	17.5
2	18.5	19.5	20.6	21.6	22.6	23.7	24.7	25.7	26.8	27.8	28.8	29.8	30.9	31.9	32.9	34.0	35.0
3	27.8	29.3	30.9	32.4	34.0	35.5	37.0	38.6	40.1	41.7	43.2	44.8	46.3	47.8	49.4	50.9	52.5
4	37.0	39.1	41.2	43.2	45.3	47.3	49.4	51.4	53.5	55.6	57.6	59.7	61.7	63.8	65.8	67.9	70.0
分 5	46.3	48.9	51.4	54.0	56.6	59.2	61.7	64.3	66.9	69.5	72.0	74.6	77.2	79.7	82.3	84.9	87.5
(0.1) 6	55.6	58.6	61.7	64.8	67.9	71.0	74.1	77.2	80.3	83.3	86.4	89.5	92.6	95.7	98.8	102	105
7	64.8	68.4	72.0	75.6	79.2	82.8	86.4	90.0	93.6	97.2	101	104	108	112	115	119	122
8	74.1	78.2	82.3	86.4	90.5	94.7	98.8	103	107	111	115	119	123	128	132	136	140
9	83.3	88.0	92.6	97.2	102	106	111	116	120	125	130	134	139	144	148	153	157
10	92.6	97.7	103	108	113	118	123	129	134	139	144	149	154	159	165	170	175
11	102	108	113	119	124	130	136	141	147	153	158	164	170	175	181	187	192
(0.2) 12	111	117	123	130	136	142	148	154	161	167	173	179	185	191	198	204	210
13	120	127	134	140	147	154	161	167	174	181	187	194	201	207	214	221	227
14	130	137	144	151	158	166	173	180	187	194	202	209	216	223	230	238	245
15	139	147	154	162	170	177	185	193	201	208	216	224	232	239	247	255	262
16	148	156	165	173	181	189	198	206	214	222	230	239	247	255	263	272	280
17	157	166	175	184	192	201	210	219	227	236	245	254	262	271	280	289	297
(0.3) 18	167	176	185	194	204	213	222	232	241	250	259	269	278	287	296	306	315
19	176	186	195	205	215	225	235	244	254	264	274	283	293	303	313	323	332
20	185	195	206	216	226	237	247	257	268	278	288	298	309	319	329	340	350
21	194	205	216	227	238	248	259	270	281	292	302	313	324	335	346	357	367
22	204	215	226	238	249	260	272	283	294	306	317	328	340	351	362	373	385
23	213	225	237	248	260	272	284	296	308	319	331	343	355	367	379	390	402
(0.4) 24	222	235	247	259	272	284	296	309	321	333	346	358	370	383	395	407	420
25	232	244	257	270	283	296	309	322	334	347	360	373	386	399	412	424	437
26	241	254	268	281	294	308	321	334	348	361	375	388	401	415	428	441	455
27	250	264	278	292	306	319	333	347	361	375	389	403	417	431	444	458	472
28	259	274	288	302	317	331	346	360	375	389	403	418	432	447	461	475	490
29	269	283	298	313	328	343	358	373	388	403	418	433	448	462	477	492	507
(0.5) 30	278	293	309	324	340	355	370	386	401	417	432	448	463	478	494	509	525
31	287	303	319	335	351	367	383	399	415	431	447	462	478	494	510	526	542
32	296	313	329	346	362	379	395	412	428	444	461	477	494	510	527	543	560
33	306	323	340	357	373	390	407	424	441	458	475	492	509	526	543	560	577
34	315	332	350	367	385	402	420	437	455	472	490	507	525	542	560	577	595
35	324	342	360	378	396	414	432	450	468	486	504	522	540	558	576	594	612
(0.6) 36	333	352	370	389	407	426	444	463	482	500	519	537	556	574	593	611	630
37	343	362	381	400	419	438	457	476	495	514	533	552	571	590	609	628	647
38	352	371	391	411	430	450	469	489	508	528	547	567	586	606	626	645	665
39	361	381	401	421	441	461	482	502	522	542	562	582	602	622	642	662	682
40	370	391	412	432	453	473	494	514	535	556	576	597	617	638	658	679	700
41	380	401	422	443	464	485	506	527	548	569	591	612	633	654	675	695	717
(0.7) 42	389	411	432	454	475	497	519	540	562	583	605	627	648	670	691	713	735
43	398	420	442	465	487	509	531	553	575	597	619	642	664	686	708	730	752
44	407	430	453	475	498	521	543	566	589	611	634	656	679	702	724	747	770
45	417	440	463	486	509	532	556	579	602	625	648	671	695	718	741	764	787
46	426	450	473	497	521	544	568	592	615	639	663	686	710	734	757	781	805
47	435	459	484	508	532	556	580	604	629	653	677	701	725	750	774	798	822
(0.8) 48	444	469	494	519	543	568	593	617	642	667	691	716	741	765	790	815	840
49	454	479	504	529	555	580	605	630	655	681	706	731	756	781	807	832	857
50	463	489	514	540	566	592	617	643	669	695	720	746	772	797	823	849	875
51	472	498	525	551	577	603	630	656	682	708	735	761	787	813	840	866	892
52	482	508	535	562	589	615	642	669	696	722	749	776	803	829	856	883	910
53	491	518	545	573	600	627	654	682	709	736	763	791	818	845	872	900	927
(0.9) 54	500	528	556	583	611	639	667	695	722	750	778	806	833	861	889	917	945
55	509	538	566	594	622	651	679	707	736	764	792	821	849	877	905	934	962
56	519	547	576	605	634	663	691	720	749	778	807	835	864	893	922	951	980
57	528	557	586	616	645	674	704	733	762	792	821	850	880	909	938	968	997
58	537	567	597	627	656	686	716	746	776	806	835	865	895	925	955	985	1014
分 59	546	577	607	637	668	698	728	759	789	820	850	880	911	941	971	1002	1032
(1.0) 60	556	586	617	648	679	710	741	772	803	833	864	895	926	957	988	1019	1049

航路 Co. / 距離 Dist.	1°		2°		3°		4°		5°		6°		7°		航路 Co. / 距離 Dist.
	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
1	1.0	0.0	1.0	0.0	1.0	0.1	1.0	0.1	1.0	0.1	1.0	0.1	1.0	0.1	1
2	2.0	0.0	2.0	0.1	2.0	0.1	2.0	0.1	2.0	0.2	2.0	0.2	2.0	0.2	2
3	3.0	0.1	3.0	0.1	3.0	0.2	3.0	0.2	3.0	0.3	3.0	0.3	3.0	0.4	3
4	4.0	0.1	4.0	0.1	4.0	0.2	4.0	0.3	4.0	0.3	4.0	0.4	4.0	0.5	4
5	5.0	0.1	5.0	0.2	5.0	0.3	5.0	0.3	5.0	0.4	5.0	0.5	5.0	0.6	5
6	6.0	0.1	6.0	0.2	6.0	0.3	6.0	0.4	6.0	0.5	6.0	0.6	6.0	0.7	6
7	7.0	0.1	7.0	0.2	7.0	0.4	7.0	0.5	7.0	0.6	7.0	0.7	6.9	0.9	7
8	8.0	0.1	8.0	0.3	8.0	0.4	8.0	0.6	8.0	0.7	8.0	0.8	7.9	1.0	8
9	9.0	0.2	9.0	0.3	9.0	0.5	9.0	0.6	9.0	0.8	9.0	0.9	8.9	1.1	9
10	10.0	0.2	10.0	0.3	10.0	0.5	10.0	0.7	10.0	0.9	9.9	1.0	9.9	1.2	10
11	11.0	0.2	11.0	0.4	11.0	0.6	11.0	0.8	11.0	1.0	10.9	1.1	10.9	1.3	11
12	12.0	0.2	12.0	0.4	12.0	0.6	12.0	0.8	12.0	1.0	11.9	1.3	11.9	1.5	12
13	13.0	0.2	13.0	0.5	13.0	0.7	13.0	0.9	13.0	1.1	12.9	1.4	12.9	1.6	13
14	14.0	0.2	14.0	0.5	14.0	0.7	14.0	1.0	13.9	1.2	13.9	1.5	13.9	1.7	14
15	15.0	0.3	15.0	0.5	15.0	0.8	15.0	1.0	14.9	1.3	14.9	1.6	14.9	1.8	15
16	16.0	0.3	16.0	0.6	16.0	0.8	16.0	1.1	15.9	1.4	15.9	1.7	15.9	1.9	16
17	17.0	0.3	17.0	0.6	17.0	0.9	17.0	1.2	16.9	1.5	16.9	1.8	16.9	2.1	17
18	18.0	0.3	18.0	0.6	18.0	0.9	18.0	1.3	17.9	1.6	17.9	1.9	17.9	2.2	18
19	19.0	0.3	19.0	0.7	19.0	1.0	19.0	1.3	18.9	1.7	18.9	2.0	18.9	2.3	19
20	20.0	0.3	20.0	0.7	20.0	1.0	20.0	1.4	19.9	1.7	19.9	2.1	19.9	2.4	20
21	21.0	0.4	21.0	0.7	21.0	1.1	20.9	1.5	20.9	1.8	20.9	2.2	20.8	2.6	21
22	22.0	0.4	22.0	0.8	22.0	1.2	21.9	1.5	21.9	1.9	21.9	2.3	21.8	2.7	22
23	23.0	0.4	23.0	0.8	23.0	1.2	22.9	1.6	22.9	2.0	22.9	2.4	22.8	2.8	23
24	24.0	0.4	24.0	0.8	24.0	1.3	23.9	1.7	23.9	2.1	23.9	2.5	23.8	2.9	24
25	25.0	0.4	25.0	0.9	25.0	1.3	24.9	1.7	24.9	2.2	24.9	2.6	24.8	3.0	25
26	26.0	0.5	26.0	0.9	26.0	1.4	25.9	1.8	25.9	2.3	25.9	2.7	25.8	3.2	26
27	27.0	0.5	27.0	0.9	27.0	1.4	26.9	1.9	26.9	2.4	26.9	2.8	26.8	3.3	27
28	28.0	0.5	28.0	1.0	28.0	1.5	27.9	2.0	27.9	2.4	27.8	2.9	27.8	3.4	28
29	29.0	0.5	29.0	1.0	29.0	1.5	28.9	2.0	28.9	2.5	28.8	3.0	28.8	3.5	29
30	30.0	0.5	30.0	1.0	30.0	1.6	29.9	2.1	29.9	2.6	29.8	3.1	29.8	3.7	30
31	31.0	0.5	31.0	1.1	31.0	1.6	30.9	2.2	30.9	2.7	30.8	3.2	30.8	3.8	31
32	32.0	0.6	32.0	1.1	32.0	1.7	31.9	2.2	31.9	2.8	31.8	3.3	31.8	3.9	32
33	33.0	0.6	33.0	1.2	33.0	1.7	32.9	2.3	32.9	2.9	32.8	3.4	32.8	4.0	33
34	34.0	0.6	34.0	1.2	34.0	1.8	33.9	2.4	33.9	3.0	33.8	3.6	33.7	4.1	34
35	35.0	0.6	35.0	1.2	35.0	1.8	34.9	2.4	34.9	3.1	34.8	3.7	34.7	4.3	35
36	36.0	0.6	36.0	1.3	36.0	1.9	35.9	2.5	35.9	3.1	35.8	3.8	35.7	4.4	36
37	37.0	0.6	37.0	1.3	36.9	1.9	36.9	2.6	36.9	3.2	36.8	3.9	36.7	4.5	37
38	38.0	0.7	38.0	1.3	37.9	2.0	37.9	2.7	37.9	3.3	37.8	4.0	37.7	4.6	38
39	39.0	0.7	39.0	1.4	38.9	2.0	38.9	2.7	38.9	3.4	38.8	4.1	38.7	4.8	39
40	40.0	0.7	40.0	1.4	39.9	2.1	39.9	2.8	39.8	3.5	39.8	4.2	39.7	4.9	40
41	41.0	0.7	41.0	1.4	40.9	2.1	40.9	2.9	40.8	3.6	40.8	4.3	40.7	5.0	41
42	42.0	0.7	42.0	1.5	41.9	2.2	41.9	2.9	41.8	3.7	41.8	4.4	41.7	5.1	42
43	43.0	0.8	43.0	1.5	42.9	2.3	42.9	3.0	42.8	3.7	42.8	4.5	42.7	5.2	43
44	44.0	0.8	44.0	1.5	43.9	2.3	43.9	3.1	43.8	3.8	43.8	4.6	43.7	5.4	44
45	45.0	0.8	45.0	1.6	44.9	2.4	44.9	3.1	44.8	3.9	44.8	4.7	44.7	5.5	45
46	46.0	0.8	46.0	1.6	45.9	2.4	45.9	3.2	45.8	4.0	45.7	4.8	45.7	5.6	46
47	47.0	0.8	47.0	1.6	46.9	2.5	46.9	3.3	46.8	4.1	46.7	4.9	46.6	5.7	47
48	48.0	0.8	48.0	1.7	47.9	2.5	47.9	3.3	47.8	4.2	47.7	5.0	47.6	5.8	48
49	49.0	0.9	49.0	1.7	48.9	2.6	48.9	3.4	48.8	4.3	48.7	5.1	48.6	6.0	49
50	50.0	0.9	50.0	1.7	49.9	2.6	49.9	3.5	49.8	4.4	49.7	5.2	49.6	6.1	50
100	100.0	1.7	99.9	3.5	99.9	5.2	99.8	7.0	99.6	8.7	99.5	10.5	99.3	12.2	100
200	200.0	3.5	199.9	7.0	199.7	10.5	199.5	14.0	199.2	17.4	198.9	20.9	198.5	24.4	200
300	300.0	5.2	299.8	10.5	299.6	15.7	299.3	20.9	298.9	26.1	298.4	31.4	297.8	36.6	300
400	399.9	7.0	399.8	14.0	399.5	20.9	399.0	27.9	398.5	34.9	397.8	41.8	397.0	48.7	400
500	499.9	8.7	499.7	17.4	499.3	26.2	498.8	34.9	498.1	43.6	497.3	52.3	496.3	60.9	500
600	599.9	10.5	599.6	20.9	599.2	31.4	598.5	41.9	597.7	52.3	596.7	62.7	595.5	73.1	600
700	699.9	12.2	699.6	24.4	699.0	36.6	698.3	48.8	697.3	61.0	696.2	73.2	694.8	85.3	700
800	799.9	14.0	799.5	27.9	798.9	41.9	798.1	55.8	797.0	69.7	795.6	83.6	794.0	97.5	800
900	899.9	15.7	899.5	31.4	898.8	47.1	897.8	62.8	896.6	78.4	895.1	94.1	893.3	109.7	900

距離 Dist. / 航路 Co.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	航路 Co. / 距離 Dist.
	89°		88°		87°		86°		85°		84°		83°		

航路 Co. / 距離 Dist.	1°		2°		3°		4°		5°		6°		7°		航路 Co. / 距離 Dist.
	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
50	50.0	0.9	50.0	1.7	49.9	2.6	49.9	3.5	49.8	4.4	49.7	5.2	49.6	6.1	50
51	51.0	0.9	51.0	1.8	50.9	2.7	50.9	3.6	50.8	4.4	50.7	5.3	50.6	6.2	51
52	52.0	0.9	52.0	1.8	51.9	2.7	51.9	3.6	51.8	4.5	51.7	5.4	51.6	6.3	52
53	53.0	0.9	53.0	1.8	52.9	2.8	52.9	3.7	52.8	4.6	52.7	5.5	52.6	6.5	53
54	54.0	0.9	54.0	1.9	53.9	2.8	53.9	3.8	53.8	4.7	53.7	5.6	53.6	6.6	54
55	55.0	1.0	55.0	1.9	54.9	2.9	54.9	3.8	54.8	4.8	54.7	5.7	54.6	6.7	55
56	56.0	1.0	56.0	2.0	55.9	2.9	55.9	3.9	55.8	4.9	55.7	5.9	55.6	6.8	56
57	57.0	1.0	57.0	2.0	56.9	3.0	56.9	4.0	56.8	5.0	56.7	6.0	56.6	6.9	57
58	58.0	1.0	58.0	2.0	57.9	3.0	57.9	4.0	57.8	5.1	57.7	6.1	57.6	7.1	58
59	59.0	1.0	59.0	2.1	58.9	3.1	58.9	4.1	58.8	5.1	58.7	6.2	58.6	7.2	59
60	60.0	1.0	60.0	2.1	59.9	3.1	59.9	4.2	59.8	5.2	59.7	6.3	59.6	7.3	60
61	61.0	1.1	61.0	2.1	60.9	3.2	60.9	4.3	60.8	5.3	60.7	6.4	60.5	7.4	61
62	62.0	1.1	62.0	2.2	61.9	3.2	61.8	4.3	61.8	5.4	61.7	6.5	61.5	7.6	62
63	63.0	1.1	63.0	2.2	62.9	3.3	62.8	4.4	62.8	5.5	62.7	6.6	62.5	7.7	63
64	64.0	1.1	64.0	2.2	63.9	3.3	63.8	4.5	63.8	5.6	63.6	6.7	63.5	7.8	64
65	65.0	1.1	65.0	2.3	64.9	3.4	64.8	4.5	64.8	5.7	64.6	6.8	64.5	7.9	65
66	66.0	1.2	66.0	2.3	65.9	3.5	65.8	4.6	65.7	5.8	65.6	6.9	65.5	8.0	66
67	67.0	1.2	67.0	2.3	66.9	3.5	66.8	4.7	66.7	5.8	66.6	7.0	66.5	8.2	67
68	68.0	1.2	68.0	2.4	67.9	3.6	67.8	4.7	67.7	5.9	67.6	7.1	67.5	8.3	68
69	69.0	1.2	69.0	2.4	68.9	3.6	68.8	4.8	68.7	6.0	68.6	7.2	68.5	8.4	69
70	70.0	1.2	70.0	2.4	69.9	3.7	69.8	4.9	69.7	6.1	69.6	7.3	69.5	8.5	70
71	71.0	1.2	71.0	2.5	70.9	3.7	70.8	5.0	70.7	6.2	70.6	7.4	70.5	8.7	71
72	72.0	1.3	72.0	2.5	71.9	3.8	71.8	5.0	71.7	6.3	71.6	7.5	71.5	8.8	72
73	73.0	1.3	73.0	2.5	72.9	3.8	72.8	5.1	72.7	6.4	72.6	7.6	72.5	8.9	73
74	74.0	1.3	74.0	2.6	73.9	3.9	73.8	5.2	73.7	6.4	73.6	7.7	73.4	9.0	74
75	75.0	1.3	75.0	2.6	74.9	3.9	74.8	5.2	74.7	6.5	74.6	7.8	74.4	9.1	75
76	76.0	1.3	76.0	2.7	75.9	4.0	75.8	5.3	75.7	6.6	75.6	7.9	75.4	9.3	76
77	77.0	1.3	77.0	2.7	76.9	4.0	76.8	5.4	76.7	6.7	76.6	8.0	76.4	9.4	77
78	78.0	1.4	78.0	2.7	77.9	4.1	77.8	5.4	77.7	6.8	77.6	8.2	77.4	9.5	78
79	79.0	1.4	79.0	2.8	78.9	4.1	78.8	5.5	78.7	6.9	78.6	8.3	78.4	9.6	79
80	80.0	1.4	80.0	2.8	79.9	4.2	79.8	5.6	79.7	7.0	79.6	8.4	79.4	9.7	80
81	81.0	1.4	81.0	2.8	80.9	4.2	80.8	5.7	80.7	7.1	80.6	8.5	80.4	9.9	81
82	82.0	1.4	82.0	2.9	81.9	4.3	81.8	5.7	81.7	7.1	81.6	8.6	81.4	10.0	82
83	83.0	1.4	82.9	2.9	82.9	4.3	82.8	5.8	82.7	7.2	82.5	8.7	82.4	10.1	83
84	84.0	1.5	83.9	2.9	83.9	4.4	83.8	5.9	83.7	7.3	83.5	8.8	83.4	10.2	84
85	85.0	1.5	84.9	3.0	84.9	4.4	84.8	5.9	84.7	7.4	84.5	8.9	84.4	10.4	85
86	86.0	1.5	85.9	3.0	85.9	4.5	85.8	6.0	85.7	7.5	85.5	9.0	85.4	10.5	86
87	87.0	1.5	86.9	3.0	86.9	4.6	86.8	6.1	86.7	7.6	86.5	9.1	86.4	10.6	87
88	88.0	1.5	87.9	3.1	87.9	4.6	87.8	6.1	87.7	7.7	87.5	9.2	87.3	10.7	88
89	89.0	1.6	88.9	3.1	88.9	4.7	88.8	6.2	88.7	7.8	88.5	9.3	88.3	10.8	89
90	90.0	1.6	89.9	3.1	89.9	4.7	89.8	6.3	89.7	7.8	89.5	9.4	89.3	11.0	90
91	91.0	1.6	90.9	3.2	90.9	4.8	90.8	6.3	90.7	7.9	90.5	9.5	90.3	11.1	91
92	92.0	1.6	91.9	3.2	91.9	4.8	91.8	6.4	91.6	8.0	91.5	9.6	91.3	11.2	92
93	93.0	1.6	92.9	3.2	92.9	4.9	92.8	6.5	92.6	8.1	92.5	9.7	92.3	11.3	93
94	94.0	1.6	93.9	3.3	93.9	4.9	93.8	6.6	93.6	8.2	93.5	9.8	93.3	11.5	94
95	95.0	1.7	94.9	3.3	94.9	5.0	94.8	6.6	94.6	8.3	94.5	9.9	94.3	11.6	95
96	96.0	1.7	95.9	3.4	95.9	5.0	95.8	6.7	95.6	8.4	95.5	10.0	95.3	11.7	96
97	97.0	1.7	96.9	3.4	96.9	5.1	96.8	6.8	96.6	8.5	96.5	10.1	96.3	11.8	97
98	98.0	1.7	97.9	3.4	97.9	5.1	97.8	6.8	97.6	8.5	97.5	10.2	97.3	11.9	98
99	99.0	1.7	98.9	3.5	98.9	5.2	98.8	6.9	98.6	8.6	98.5	10.3	98.3	12.1	99
100	100.0	1.7	99.9	3.5	99.9	5.2	99.8	7.0	99.6	8.7	99.5	10.5	99.3	12.2	100
200	200.0	3.5	199.9	7.0	199.7	10.5	199.5	14.0	199.2	17.4	198.9	20.9	198.5	24.4	200
300	300.0	5.2	299.8	10.5	299.6	15.7	299.3	20.9	298.9	26.1	298.4	31.4	297.8	36.6	300
400	399.9	7.0	399.8	14.0	399.5	20.9	399.0	27.9	398.5	34.9	397.8	41.8	397.0	48.7	400
500	499.9	8.7	499.7	17.4	499.3	26.2	498.8	34.9	498.1	43.6	497.3	52.3	496.3	60.9	500
600	599.9	10.5	599.6	20.9	599.2	31.4	598.5	41.9	597.7	52.3	596.7	62.7	595.5	73.1	600
700	699.9	12.2	699.6	24.4	699.0	36.6	698.3	48.8	697.3	61.0	696.2	73.2	694.8	85.3	700
800	799.9	14.0	799.5	27.9	798.9	41.9	798.1	55.8	797.0	69.7	795.6	83.6	794.0	97.5	800
900	899.9	15.7	899.5	31.4	898.8	47.1	897.8	62.8	896.6	78.4	895.1	94.1	893.3	109.7	900

距離 Dist. / 航路 Co.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	航路 Co. / 距離 Dist.
	89°		88°		87°		86°		85°		84°		83°		

距離 Dist. ＼ 航路 Co.	8° D. Lat.	8° Dep.	9° D. Lat.	9° Dep.	10° D. Lat.	10° Dep.	11° D. Lat.	11° Dep.	12° D. Lat.	12° Dep.	13° D. Lat.	13° Dep.	14° D. Lat.	14° Dep.	航路 Co. ／ 距離 Dist.
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
1	1.0	0.1	1.0	0.2	1.0	0.2	1.0	0.2	1.0	0.2	1.0	0.2	1.0	0.2	1
2	2.0	0.3	2.0	0.3	2.0	0.3	2.0	0.4	2.0	0.4	1.9	0.4	1.9	0.5	2
3	3.0	0.4	3.0	0.5	3.0	0.5	2.9	0.6	2.9	0.6	2.9	0.7	2.9	0.7	3
4	4.0	0.6	4.0	0.6	3.9	0.7	3.9	0.8	3.9	0.8	3.9	0.9	3.9	1.0	4
5	5.0	0.7	4.9	0.8	4.9	0.9	4.9	1.0	4.9	1.0	4.9	1.1	4.9	1.2	5
6	5.9	0.8	5.9	0.9	5.9	1.0	5.9	1.1	5.9	1.2	5.8	1.3	5.8	1.5	6
7	6.9	1.0	6.9	1.1	6.9	1.2	6.9	1.3	6.8	1.5	6.8	1.6	6.8	1.7	7
8	7.9	1.1	7.9	1.3	7.9	1.4	7.9	1.5	7.8	1.7	7.8	1.8	7.8	1.9	8
9	8.9	1.3	8.9	1.4	8.9	1.6	8.8	1.7	8.8	1.9	8.8	2.0	8.7	2.2	9
10	9.9	1.4	9.9	1.6	9.8	1.7	9.8	1.9	9.8	2.1	9.7	2.2	9.7	2.4	10
11	10.9	1.5	10.9	1.7	10.8	1.9	10.8	2.1	10.8	2.3	10.7	2.5	10.7	2.7	11
12	11.9	1.7	11.9	1.9	11.8	2.1	11.8	2.3	11.7	2.5	11.7	2.7	11.6	2.9	12
13	12.9	1.8	12.8	2.0	12.8	2.3	12.8	2.5	12.7	2.7	12.7	2.9	12.6	3.1	13
14	13.9	1.9	13.8	2.2	13.8	2.4	13.7	2.7	13.7	2.9	13.6	3.1	13.6	3.4	14
15	14.9	2.1	14.8	2.3	14.8	2.6	14.7	2.9	14.7	3.1	14.6	3.4	14.6	3.6	15
16	15.8	2.2	15.8	2.5	15.8	2.8	15.7	3.1	15.7	3.3	15.6	3.6	15.5	3.9	16
17	16.8	2.4	16.8	2.7	16.7	3.0	16.7	3.2	16.6	3.5	16.6	3.8	16.5	4.1	17
18	17.8	2.5	17.8	2.8	17.7	3.1	17.7	3.4	17.6	3.7	17.5	4.0	17.5	4.4	18
19	18.8	2.6	18.8	3.0	18.7	3.3	18.7	3.6	18.6	4.0	18.5	4.3	18.4	4.6	19
20	19.8	2.8	19.8	3.1	19.7	3.5	19.6	3.8	19.6	4.2	19.5	4.5	19.4	4.8	20
21	20.8	2.9	20.7	3.3	20.7	3.6	20.6	4.0	20.5	4.4	20.5	4.7	20.4	5.1	21
22	21.8	3.1	21.7	3.4	21.7	3.8	21.6	4.2	21.5	4.6	21.4	4.9	21.3	5.3	22
23	22.8	3.2	22.7	3.6	22.7	4.0	22.6	4.4	22.5	4.8	22.4	5.2	22.3	5.6	23
24	23.8	3.3	23.7	3.8	23.6	4.2	23.6	4.6	23.5	5.0	23.4	5.4	23.3	5.8	24
25	24.8	3.5	24.7	3.9	24.6	4.3	24.5	4.8	24.5	5.2	24.4	5.6	24.3	6.0	25
26	25.7	3.6	25.7	4.1	25.6	4.5	25.5	5.0	25.4	5.4	25.3	5.8	25.2	6.3	26
27	26.7	3.8	26.7	4.2	26.6	4.7	26.5	5.2	26.4	5.6	26.3	6.1	26.2	6.5	27
28	27.7	3.9	27.7	4.4	27.6	4.9	27.5	5.3	27.4	5.8	27.3	6.3	27.2	6.8	28
29	28.7	4.0	28.6	4.5	28.6	5.0	28.5	5.5	28.4	6.0	28.3	6.5	28.1	7.0	29
30	29.7	4.2	29.6	4.7	29.5	5.2	29.4	5.7	29.3	6.2	29.2	6.7	29.1	7.3	30
31	30.7	4.3	30.6	4.8	30.5	5.4	30.4	5.9	30.3	6.4	30.2	7.0	30.1	7.5	31
32	31.7	4.5	31.6	5.0	31.5	5.6	31.4	6.1	31.3	6.7	31.2	7.2	31.0	7.7	32
33	32.7	4.6	32.6	5.2	32.5	5.7	32.4	6.3	32.3	6.9	32.2	7.4	32.0	8.0	33
34	33.7	4.7	33.6	5.3	33.5	5.9	33.4	6.5	33.3	7.1	33.1	7.6	33.0	8.2	34
35	34.7	4.9	34.6	5.5	34.5	6.1	34.4	6.7	34.2	7.3	34.1	7.9	34.0	8.5	35
36	35.6	5.0	35.6	5.6	35.5	6.3	35.3	6.9	35.2	7.5	35.1	8.1	34.9	8.7	36
37	36.6	5.1	36.5	5.8	36.4	6.4	36.3	7.1	36.2	7.7	36.1	8.3	35.9	9.0	37
38	37.6	5.3	37.5	5.9	37.4	6.6	37.3	7.3	37.2	7.9	37.0	8.5	36.9	9.2	38
39	38.6	5.4	38.5	6.1	38.4	6.8	38.3	7.4	38.1	8.1	38.0	8.8	37.8	9.4	39
40	39.6	5.6	39.5	6.3	39.4	6.9	39.3	7.6	39.1	8.3	39.0	9.0	38.8	9.7	40
41	40.6	5.7	40.5	6.4	40.4	7.1	40.2	7.8	40.1	8.5	39.9	9.2	39.8	9.9	41
42	41.6	5.8	41.5	6.6	41.4	7.3	41.2	8.0	41.1	8.7	40.9	9.4	40.8	10.2	42
43	42.6	6.0	42.5	6.7	42.3	7.5	42.2	8.2	42.1	8.9	41.9	9.7	41.7	10.4	43
44	43.6	6.1	43.5	6.9	43.3	7.6	43.2	8.4	43.0	9.1	42.9	9.9	42.7	10.6	44
45	44.6	6.3	44.4	7.0	44.3	7.8	44.2	8.6	44.0	9.4	43.8	10.1	43.7	10.9	45
46	45.6	6.4	45.4	7.2	45.3	8.0	45.2	8.8	45.0	9.6	44.8	10.3	44.6	11.1	46
47	46.5	6.5	46.4	7.4	46.3	8.2	46.1	9.0	46.0	9.8	45.8	10.6	45.6	11.4	47
48	47.5	6.7	47.4	7.5	47.3	8.3	47.1	9.2	47.0	10.0	46.8	10.8	46.6	11.6	48
49	48.5	6.8	48.4	7.7	48.3	8.5	48.1	9.3	47.9	10.2	47.7	11.0	47.5	11.9	49
50	49.5	7.0	49.4	7.8	49.2	8.7	49.1	9.5	48.9	10.4	48.7	11.2	48.5	12.1	50
100	99.0	13.9	98.8	15.6	98.5	17.4	98.2	19.1	97.8	20.8	97.4	22.5	97.0	24.2	100
200	198.1	27.8	197.5	31.3	197.0	34.7	196.3	38.2	195.6	41.6	194.9	45.0	194.1	48.4	200
300	297.1	41.8	296.3	46.9	295.4	52.1	294.5	57.2	293.4	62.4	292.3	67.5	291.1	72.6	300
400	396.1	55.7	395.1	62.6	393.9	69.5	392.7	76.3	391.3	83.2	389.7	90.0	388.1	96.8	400
500	495.1	69.6	493.8	78.2	492.4	86.8	490.8	95.4	489.1	104.0	487.2	112.5	485.1	121.0	500
600	594.2	83.5	592.6	93.9	590.9	104.2	589.0	114.5	586.9	124.7	584.6	135.0	582.2	145.2	600
700	693.2	97.4	691.4	109.5	689.4	121.6	687.1	133.6	684.7	145.5	682.1	157.5	679.2	169.3	700
800	792.2	111.3	790.2	125.1	787.8	138.9	785.3	152.6	782.5	166.3	779.5	180.0	776.2	193.5	800
900	891.2	125.3	888.9	140.8	886.3	156.3	883.5	171.7	880.3	187.1	876.9	202.5	873.3	217.7	900

距離 Dist. ＼ 航路 Co.	82° Dep.	82° D. Lat.	81° Dep.	81° D. Lat.	80° Dep.	80° D. Lat.	79° Dep.	79° D. Lat.	78° Dep.	78° D. Lat.	77° Dep.	77° D. Lat.	76° Dep.	76° D. Lat.	航路 Co. ／ 距離 Dist.

距離 Dist. ＼ 航路 Co.	8° D. Lat.	8° Dep.	9° D. Lat.	9° Dep.	10° D. Lat.	10° Dep.	11° D. Lat.	11° Dep.	12° D. Lat.	12° Dep.	13° D. Lat.	13° Dep.	14° D. Lat.	14° Dep.	航路 Co. ／ 距離 Dist.
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
50	49.5	7.0	49.4	7.8	49.2	8.7	49.1	9.5	48.9	10.4	48.7	11.2	48.5	12.1	50
51	50.5	7.1	50.4	8.0	50.2	8.9	50.1	9.7	49.9	10.6	49.7	11.5	49.5	12.3	51
52	51.5	7.2	51.4	8.1	51.2	9.0	51.0	9.9	50.9	10.8	50.7	11.7	50.5	12.6	52
53	52.5	7.4	52.3	8.3	52.2	9.2	52.0	10.1	51.8	11.0	51.6	11.9	51.4	12.8	53
54	53.5	7.5	53.3	8.4	53.2	9.4	53.0	10.3	52.8	11.2	52.6	12.1	52.4	13.1	54
55	54.5	7.7	54.3	8.6	54.2	9.6	54.0	10.5	53.8	11.4	53.6	12.4	53.4	13.3	55
56	55.5	7.8	55.3	8.8	55.1	9.7	55.0	10.7	54.8	11.6	54.6	12.6	54.3	13.5	56
57	56.4	7.9	56.3	8.9	56.1	9.9	56.0	10.9	55.8	11.9	55.5	12.8	55.3	13.8	57
58	57.4	8.1	57.3	9.1	57.1	10.1	56.9	11.1	56.7	12.1	56.5	13.0	56.3	14.0	58
59	58.4	8.2	58.3	9.2	58.1	10.2	57.9	11.3	57.7	12.3	57.5	13.3	57.2	14.3	59
60	59.4	8.4	59.3	9.4	59.1	10.4	58.9	11.4	58.7	12.5	58.5	13.5	58.2	14.5	60
61	60.4	8.5	60.2	9.5	60.1	10.6	59.9	11.6	59.7	12.7	59.4	13.7	59.2	14.8	61
62	61.4	8.6	61.2	9.7	61.1	10.8	60.9	11.8	60.6	12.9	60.4	13.9	60.2	15.0	62
63	62.4	8.8	62.2	9.9	62.0	10.9	61.8	12.0	61.6	13.1	61.4	14.2	61.1	15.2	63
64	63.4	8.9	63.2	10.0	63.0	11.1	62.8	12.2	62.6	13.3	62.4	14.4	62.1	15.5	64
65	64.4	9.0	64.2	10.2	64.0	11.3	63.8	12.4	63.6	13.5	63.3	14.6	63.1	15.7	65
66	65.4	9.2	65.2	10.3	65.0	11.5	64.8	12.6	64.6	13.7	64.3	14.8	64.0	16.0	66
67	66.3	9.3	66.2	10.5	66.0	11.6	65.8	12.8	65.5	13.9	65.3	15.1	65.0	16.2	67
68	67.3	9.5	67.2	10.6	67.0	11.8	66.8	13.0	66.5	14.1	66.3	15.3	66.0	16.5	68
69	68.3	9.6	68.2	10.8	68.0	12.0	67.7	13.2	67.5	14.3	67.2	15.5	67.0	16.7	69
70	69.3	9.7	69.1	11.0	68.9	12.2	68.7	13.4	68.5	14.6	68.2	15.7	67.9	16.9	70
71	70.3	9.9	70.1	11.1	69.9	12.3	69.7	13.5	69.4	14.8	69.2	16.0	68.9	17.2	71
72	71.3	10.0	71.1	11.3	70.9	12.5	70.7	13.7	70.4	15.0	70.2	16.2	69.9	17.4	72
73	72.3	10.2	72.1	11.4	71.9	12.7	71.7	13.9	71.4	15.2	71.1	16.4	70.8	17.7	73
74	73.3	10.3	73.1	11.6	72.9	12.8	72.6	14.1	72.4	15.4	72.1	16.6	71.8	17.9	74
75	74.3	10.4	74.1	11.7	73.9	13.0	73.6	14.3	73.4	15.6	73.1	16.9	72.8	18.1	75
76	75.3	10.6	75.1	11.9	74.8	13.2	74.6	14.5	74.3	15.8	74.1	17.1	73.7	18.4	76
77	76.3	10.7	76.1	12.0	75.8	13.4	75.6	14.7	75.3	16.0	75.0	17.3	74.7	18.6	77
78	77.2	10.9	77.0	12.2	76.8	13.5	76.6	14.9	76.3	16.2	76.0	17.5	75.7	18.9	78
79	78.2	11.0	78.0	12.4	77.8	13.7	77.5	15.1	77.3	16.4	77.0	17.8	76.7	19.1	79
80	79.2	11.1	79.0	12.5	78.8	13.9	78.5	15.3	78.3	16.6	77.9	18.0	77.6	19.4	80
81	80.2	11.3	80.0	12.7	79.8	14.1	79.5	15.5	79.2	16.8	78.9	18.2	78.6	19.6	81
82	81.2	11.4	81.0	12.8	80.8	14.2	80.5	15.6	80.2	17.0	79.9	18.4	79.6	19.8	82
83	82.2	11.6	82.0	13.0	81.7	14.4	81.5	15.8	81.2	17.3	80.9	18.7	80.5	20.1	83
84	83.2	11.7	83.0	13.1	82.7	14.6	82.5	16.0	82.2	17.5	81.8	18.9	81.5	20.3	84
85	84.2	11.8	84.0	13.3	83.7	14.8	83.4	16.2	83.1	17.7	82.8	19.1	82.5	20.6	85
86	85.2	12.0	84.9	13.5	84.7	14.9	84.4	16.4	84.1	17.9	83.8	19.3	83.4	20.8	86
87	86.2	12.1	85.9	13.6	85.7	15.1	85.4	16.6	85.1	18.1	84.8	19.6	84.4	21.0	87
88	87.1	12.2	86.9	13.8	86.7	15.3	86.4	16.8	86.1	18.3	85.7	19.8	85.4	21.3	88
89	88.1	12.4	87.9	13.9	87.6	15.5	87.4	17.0	87.1	18.5	86.7	20.0	86.4	21.5	89
90	89.1	12.5	88.9	14.1	88.6	15.6	88.3	17.2	88.0	18.7	87.7	20.2	87.3	21.8	90
91	90.1	12.7	89.9	14.2	89.6	15.8	89.3	17.4	89.0	18.9	88.7	20.5	88.3	22.0	91
92	91.1	12.8	90.9	14.4	90.6	16.0	90.3	17.6	90.0	19.1	89.6	20.7	89.3	22.3	92
93	92.1	12.9	91.9	14.5	91.6	16.1	91.3	17.7	91.0	19.3	90.6	20.9	90.2	22.5	93
94	93.1	13.1	92.8	14.7	92.6	16.3	92.3	17.9	91.9	19.5	91.6	21.1	91.2	22.7	94
95	94.1	13.2	93.8	14.9	93.6	16.5	93.3	18.1	92.9	19.8	92.6	21.4	92.2	23.0	95
96	95.1	13.4	94.8	15.0	94.5	16.7	94.2	18.3	93.9	20.0	93.5	21.6	93.1	23.2	96
97	96.1	13.5	95.8	15.2	95.5	16.8	95.2	18.5	94.9	20.2	94.5	21.8	94.1	23.5	97
98	97.0	13.6	96.8	15.3	96.5	17.0	96.2	18.7	95.9	20.4	95.5	22.0	95.1	23.7	98
99	98.0	13.8	97.8	15.5	97.5	17.2	97.2	18.9	96.8	20.6	96.5	22.3	96.1	24.0	99
100	99.0	13.9	98.8	15.6	98.5	17.4	98.2	19.1	97.8	20.8	97.4	22.5	97.0	24.2	100
200	198.1	27.8	197.5	31.3	197.0	34.7	196.3	38.2	195.6	41.6	194.9	45.0	194.1	48.4	200
300	297.1	41.8	296.3	46.9	295.4	52.1	294.5	57.2	293.4	62.4	292.3	67.5	291.1	72.6	300
400	396.1	55.7	395.1	62.6	393.9	69.5	392.7	76.3	391.3	83.2	389.7	90.0	388.1	96.8	400
500	495.1	69.6	493.8	78.2	492.4	86.8	490.8	95.4	489.1	104.0	487.2	112.5	485.1	121.0	500
600	594.2	83.5	592.6	93.9	590.9	104.2	589.0	114.5	586.9	124.7	584.6	135.0	582.2	145.2	600
700	693.2	97.4	691.4	109.5	689.4	121.6	687.1	133.6	684.7	145.5	682.1	157.5	679.2	169.3	700
800	792.2	111.3	790.2	125.1	787.8	138.9	785.3	152.6	782.5	166.3	779.5	180.0	776.2	193.5	800
900	891.2	125.3	888.9	140.8	886.3	156.3	883.5	171.7	880.3	187.1	876.9	202.5	873.3	217.7	900

距離 Dist. ＼ 航路 Co.	82° Dep.	82° D. Lat.	81° Dep.	81° D. Lat.	80° Dep.	80° D. Lat.	79° Dep.	79° D. Lat.	78° Dep.	78° D. Lat.	77° Dep.	77° D. Lat.	76° Dep.	76° D. Lat.	航路 Co. ／ 距離 Dist.

距離 Dist. / 航路 Co.	15° D. Lat.	15° Dep.	16° D. Lat.	16° Dep.	17° D. Lat.	17° Dep.	18° D. Lat.	18° Dep.	19° D. Lat.	19° Dep.	20° D. Lat.	20° Dep.	21° D. Lat.	21° Dep.	距離 Dist. / 航路 Co.
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
1	1.0	0.3	1.0	0.3	1.0	0.3	1.0	0.3	0.9	0.3	0.9	0.3	0.9	0.4	1
2	1.9	0.5	1.9	0.6	1.9	0.6	1.9	0.6	1.9	0.7	1.9	0.7	1.9	0.7	2
3	2.9	0.8	2.9	0.8	2.9	0.9	2.9	0.9	2.8	1.0	2.8	1.0	2.8	1.1	3
4	3.9	1.0	3.8	1.1	3.8	1.2	3.8	1.2	3.8	1.3	3.8	1.4	3.7	1.4	4
5	4.8	1.3	4.8	1.4	4.8	1.5	4.8	1.5	4.7	1.6	4.7	1.7	4.7	1.8	5
6	5.8	1.6	5.8	1.7	5.7	1.8	5.7	1.9	5.7	2.0	5.6	2.1	5.6	2.2	6
7	6.8	1.8	6.7	1.9	6.7	2.0	6.7	2.2	6.6	2.3	6.6	2.4	6.5	2.5	7
8	7.7	2.1	7.7	2.2	7.7	2.3	7.6	2.5	7.6	2.6	7.5	2.7	7.5	2.9	8
9	8.7	2.3	8.7	2.5	8.6	2.6	8.6	2.8	8.5	2.9	8.5	3.1	8.4	3.2	9
10	9.7	2.6	9.6	2.8	9.6	2.9	9.5	3.1	9.5	3.3	9.4	3.4	9.3	3.6	10
11	10.6	2.8	10.6	3.0	10.5	3.2	10.5	3.4	10.4	3.6	10.3	3.8	10.3	3.9	11
12	11.6	3.1	11.5	3.3	11.5	3.5	11.4	3.7	11.3	3.9	11.3	4.1	11.2	4.3	12
13	12.6	3.4	12.5	3.6	12.4	3.8	12.4	4.0	12.3	4.2	12.2	4.4	12.1	4.7	13
14	13.5	3.6	13.5	3.9	13.4	4.1	13.3	4.3	13.2	4.6	13.2	4.8	13.1	5.0	14
15	14.5	3.9	14.4	4.1	14.3	4.4	14.3	4.6	14.2	4.9	14.1	5.1	14.0	5.4	15
16	15.5	4.1	15.4	4.4	15.3	4.7	15.2	4.9	15.1	5.2	15.0	5.5	14.9	5.7	16
17	16.4	4.4	16.3	4.7	16.3	5.0	16.2	5.3	16.1	5.5	16.0	5.8	15.9	6.1	17
18	17.4	4.7	17.3	5.0	17.2	5.3	17.1	5.6	17.0	5.9	16.9	6.2	16.8	6.5	18
19	18.4	4.9	18.3	5.2	18.2	5.6	18.1	5.9	18.0	6.2	17.9	6.5	17.7	6.8	19
20	19.3	5.2	19.2	5.5	19.1	5.8	19.0	6.2	18.9	6.5	18.8	6.8	18.7	7.2	20
21	20.3	5.4	20.2	5.8	20.1	6.1	20.0	6.5	19.9	6.8	19.7	7.2	19.6	7.5	21
22	21.3	5.7	21.1	6.1	21.0	6.4	20.9	6.8	20.8	7.2	20.7	7.5	20.5	7.9	22
23	22.2	6.0	22.1	6.3	22.0	6.7	21.9	7.1	21.7	7.5	21.6	7.9	21.5	8.2	23
24	23.2	6.2	23.1	6.6	23.0	7.0	22.8	7.4	22.7	7.8	22.6	8.2	22.4	8.6	24
25	24.1	6.5	24.0	6.9	23.9	7.3	23.8	7.7	23.6	8.1	23.5	8.6	23.3	9.0	25
26	25.1	6.7	25.0	7.2	24.9	7.6	24.7	8.0	24.6	8.5	24.4	8.9	24.3	9.3	26
27	26.1	7.0	26.0	7.4	25.8	7.9	25.7	8.3	25.5	8.8	25.4	9.2	25.2	9.7	27
28	27.0	7.2	26.9	7.7	26.8	8.2	26.6	8.7	26.5	9.1	26.3	9.6	26.1	10.0	28
29	28.0	7.5	27.9	8.0	27.7	8.5	27.6	9.0	27.4	9.4	27.3	9.9	27.1	10.4	29
30	29.0	7.8	28.8	8.3	28.7	8.8	28.5	9.3	28.4	9.8	28.2	10.3	28.0	10.8	30
31	29.9	8.0	29.8	8.5	29.6	9.1	29.5	9.6	29.3	10.1	29.1	10.6	28.9	11.1	31
32	30.9	8.3	30.8	8.8	30.6	9.4	30.4	9.9	30.3	10.4	30.1	10.9	29.9	11.5	32
33	31.9	8.5	31.7	9.1	31.6	9.6	31.4	10.2	31.2	10.7	31.0	11.3	30.8	11.8	33
34	32.8	8.8	32.7	9.4	32.5	9.9	32.3	10.5	32.1	11.1	31.9	11.6	31.7	12.2	34
35	33.8	9.1	33.6	9.6	33.5	10.2	33.3	10.8	33.1	11.4	32.9	12.0	32.7	12.5	35
36	34.8	9.3	34.6	9.9	34.4	10.5	34.2	11.1	34.0	11.7	33.8	12.3	33.6	12.9	36
37	35.7	9.6	35.6	10.2	35.4	10.8	35.2	11.4	35.0	12.0	34.8	12.7	34.5	13.3	37
38	36.7	9.8	36.5	10.5	36.3	11.1	36.1	11.7	35.9	12.4	35.7	13.0	35.5	13.6	38
39	37.7	10.1	37.5	10.7	37.3	11.4	37.1	12.1	36.9	12.7	36.6	13.3	36.4	14.0	39
40	38.6	10.4	38.5	11.0	38.3	11.7	38.0	12.4	37.8	13.0	37.6	13.7	37.3	14.3	40
41	39.6	10.6	39.4	11.3	39.2	12.0	39.0	12.7	38.8	13.3	38.5	14.0	38.3	14.7	41
42	40.6	10.9	40.4	11.6	40.2	12.3	39.9	13.0	39.7	13.7	39.5	14.4	39.2	15.1	42
43	41.5	11.1	41.3	11.9	41.1	12.6	40.9	13.3	40.7	14.0	40.4	14.7	40.1	15.4	43
44	42.5	11.4	42.3	12.1	42.1	12.9	41.8	13.6	41.6	14.3	41.3	15.0	41.1	15.8	44
45	43.5	11.6	43.3	12.4	43.0	13.2	42.8	13.9	42.5	14.7	42.3	15.4	42.0	16.1	45
46	44.4	11.9	44.2	12.7	44.0	13.4	43.7	14.2	43.5	15.0	43.2	15.7	42.9	16.5	46
47	45.4	12.2	45.2	13.0	44.9	13.7	44.7	14.5	44.4	15.3	44.2	16.1	43.9	16.8	47
48	46.4	12.4	46.1	13.2	45.9	14.0	45.7	14.8	45.4	15.6	45.1	16.4	44.8	17.2	48
49	47.3	12.7	47.1	13.5	46.9	14.3	46.6	15.1	46.3	16.0	46.0	16.8	45.7	17.6	49
50	48.3	12.9	48.1	13.8	47.8	14.6	47.6	15.5	47.3	16.3	47.0	17.1	46.7	17.9	50
100	96.6	25.9	96.1	27.6	95.6	29.2	95.1	30.9	94.6	32.6	94.0	34.2	93.4	35.8	100
200	193.2	51.8	192.3	55.1	191.3	58.5	190.2	61.8	189.1	65.1	187.9	68.4	186.7	71.7	200
300	289.8	77.6	288.4	82.7	286.9	87.7	285.3	92.7	283.7	97.7	281.9	102.6	280.1	107.5	300
400	386.4	103.5	384.5	110.3	382.5	116.9	380.4	123.6	378.2	130.2	375.9	136.8	373.4	143.3	400
500	483.0	129.4	480.6	137.8	478.2	146.2	475.5	154.5	472.8	162.8	469.8	171.0	466.8	179.2	500
600	579.6	155.3	576.8	165.4	573.8	175.4	570.6	185.4	567.3	195.3	563.8	205.2	560.1	215.0	600
700	676.1	181.2	672.9	192.9	669.4	204.7	665.7	216.3	661.9	227.9	657.8	239.4	653.5	250.9	700
800	772.7	207.1	769.0	220.5	765.0	233.9	760.8	247.2	756.4	260.5	751.8	273.6	746.9	286.7	800
900	869.3	232.9	865.1	248.1	860.7	263.1	856.0	278.1	851.0	293.0	845.7	307.8	840.2	322.5	900
距離 Dist. / 航路 Co.	75° Dep.	75° D. Lat.	74° Dep.	74° D. Lat.	73° Dep.	73° D. Lat.	72° Dep.	72° D. Lat.	71° Dep.	71° D. Lat.	70° Dep.	70° D. Lat.	69° Dep.	69° D. Lat.	距離 Dist. / 航路 Co.

距離 Dist. / 航路 Co.	15° D. Lat.	15° Dep.	16° D. Lat.	16° Dep.	17° D. Lat.	17° Dep.	18° D. Lat.	18° Dep.	19° D. Lat.	19° Dep.	20° D. Lat.	20° Dep.	21° D. Lat.	21° Dep.	距離 Dist. / 航路 Co.
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
50	48.3	12.9	48.1	13.8	47.8	14.6	47.6	15.5	47.3	16.3	47.0	17.1	46.7	17.9	50
51	49.3	13.2	49.0	14.1	48.8	14.9	48.5	15.8	48.2	16.6	47.9	17.4	47.6	18.3	51
52	50.2	13.5	50.0	14.3	49.7	15.2	49.5	16.1	49.2	16.9	48.9	17.8	48.5	18.6	52
53	51.2	13.7	50.9	14.6	50.7	15.5	50.4	16.4	50.1	17.3	49.8	18.1	49.5	19.0	53
54	52.2	14.0	51.9	14.9	51.6	15.8	51.4	16.7	51.1	17.6	50.7	18.5	50.4	19.4	54
55	53.1	14.2	52.9	15.2	52.6	16.1	52.3	17.0	52.0	17.9	51.7	18.8	51.3	19.7	55
56	54.1	14.5	53.8	15.4	53.6	16.4	53.3	17.3	52.9	18.2	52.6	19.2	52.3	20.1	56
57	55.1	14.8	54.8	15.7	54.5	16.7	54.2	17.6	53.9	18.6	53.6	19.5	53.2	20.4	57
58	56.0	15.0	55.8	16.0	55.5	17.0	55.2	17.9	54.8	18.9	54.5	19.8	54.1	20.8	58
59	57.0	15.3	56.7	16.3	56.4	17.2	56.1	18.2	55.8	19.2	55.4	20.2	55.1	21.1	59
60	58.0	15.5	57.7	16.5	57.4	17.5	57.1	18.5	56.7	19.5	56.4	20.5	56.0	21.5	60
61	58.9	15.8	58.6	16.8	58.3	17.8	58.0	18.9	57.7	19.9	57.3	20.9	56.9	21.9	61
62	59.9	16.0	59.6	17.1	59.3	18.1	59.0	19.2	58.6	20.2	58.3	21.2	57.9	22.2	62
63	60.9	16.3	60.6	17.4	60.2	18.4	59.9	19.5	59.6	20.5	59.2	21.5	58.8	22.6	63
64	61.8	16.6	61.5	17.6	61.2	18.7	60.9	19.8	60.5	20.8	60.1	21.9	59.7	22.9	64
65	62.8	16.8	62.5	17.9	62.2	19.0	61.8	20.1	61.5	21.2	61.1	22.2	60.7	23.3	65
66	63.8	17.1	63.4	18.2	63.1	19.3	62.8	20.4	62.4	21.5	62.0	22.6	61.6	23.7	66
67	64.7	17.3	64.4	18.5	64.1	19.6	63.7	20.7	63.3	21.8	63.0	22.9	62.5	24.0	67
68	65.7	17.6	65.4	18.7	65.0	19.9	64.7	21.0	64.3	22.1	63.9	23.3	63.5	24.4	68
69	66.6	17.9	66.3	19.0	66.0	20.2	65.6	21.3	65.2	22.5	64.8	23.6	64.4	24.7	69
70	67.6	18.1	67.3	19.3	66.9	20.5	66.6	21.6	66.2	22.8	65.8	23.9	65.4	25.1	70
71	68.6	18.4	68.2	19.6	67.9	20.8	67.5	21.9	67.1	23.1	66.7	24.3	66.3	25.4	71
72	69.5	18.6	69.2	19.8	68.9	21.1	68.5	22.2	68.1	23.4	67.7	24.6	67.2	25.8	72
73	70.5	18.9	70.2	20.1	69.8	21.3	69.4	22.6	69.0	23.8	68.6	25.0	68.2	26.2	73
74	71.5	19.2	71.1	20.4	70.8	21.6	70.4	22.9	70.0	24.1	69.5	25.3	69.1	26.5	74
75	72.4	19.4	72.1	20.7	71.7	21.9	71.3	23.2	70.9	24.4	70.5	25.7	70.0	26.9	75
76	73.4	19.7	73.1	20.9	72.7	22.2	72.3	23.5	71.9	24.7	71.4	26.0	71.0	27.2	76
77	74.4	19.9	74.0	21.2	73.6	22.5	73.2	23.8	72.8	25.1	72.4	26.3	71.9	27.6	77
78	75.3	20.2	75.0	21.5	74.6	22.8	74.2	24.1	73.8	25.4	73.3	26.7	72.8	28.0	78
79	76.3	20.4	75.9	21.8	75.5	23.1	75.1	24.4	74.7	25.7	74.2	27.0	73.8	28.3	79
80	77.3	20.7	76.9	22.1	76.5	23.4	76.1	24.7	75.6	26.0	75.2	27.4	74.7	28.7	80
81	78.2	21.0	77.9	22.3	77.5	23.7	77.0	25.0	76.6	26.4	76.1	27.7	75.6	29.0	81
82	79.2	21.2	78.8	22.6	78.4	24.0	78.0	25.3	77.5	26.7	77.1	28.0	76.6	29.4	82
83	80.2	21.5	79.8	22.9	79.4	24.3	78.9	25.6	78.5	27.0	78.0	28.4	77.5	29.7	83
84	81.1	21.7	80.7	23.2	80.3	24.6	79.9	26.0	79.4	27.3	78.9	28.7	78.4	30.1	84
85	82.1	22.0	81.7	23.4	81.3	24.9	80.8	26.3	80.4	27.7	79.9	29.1	79.4	30.5	85
86	83.1	22.3	82.7	23.7	82.2	25.1	81.8	26.6	81.3	28.0	80.8	29.4	80.3	30.8	86
87	84.0	22.5	83.6	24.0	83.2	25.4	82.7	26.9	82.3	28.3	81.8	29.8	81.2	31.2	87
88	85.0	22.8	84.6	24.3	84.2	25.7	83.7	27.2	83.2	28.7	82.7	30.1	82.2	31.5	88
89	86.0	23.0	85.6	24.5	85.1	26.0	84.6	27.5	84.2	29.0	83.6	30.4	83.1	31.9	89
90	86.9	23.3	86.5	24.8	86.1	26.3	85.6	27.8	85.1	29.3	84.6	30.8	84.0	32.3	90
91	87.9	23.6	87.5	25.1	87.0	26.6	86.5	28.1	86.0	29.6	85.5	31.1	85.0	32.6	91
92	88.9	23.8	88.4	25.4	88.0	26.9	87.5	28.4	87.0	30.0	86.5	31.5	85.9	33.0	92
93	89.8	24.1	89.4	25.6	88.9	27.2	88.4	28.7	87.9	30.3	87.4	31.8	86.8	33.3	93
94	90.8	24.3	90.4	25.9	89.9	27.5	89.4	29.0	88.9	30.6	88.3	32.1	87.8	33.7	94
95	91.8	24.6	91.3	26.2	90.8	27.8	90.4	29.4	89.8	30.9	89.3	32.5	88.7	34.0	95
96	92.7	24.8	92.3	26.5	91.8	28.1	91.3	29.7	90.8	31.3	90.2	32.8	89.6	34.4	96
97	93.7	25.1	93.2	26.7	92.8	28.4	92.3	30.0	91.7	31.6	91.2	33.2	90.6	34.8	97
98	94.7	25.4	94.2	27.0	93.7	28.7	93.2	30.3	92.7	31.9	92.1	33.5	91.5	35.1	98
99	95.6	25.6	95.2	27.3	94.7	28.9	94.2	30.6	93.6	32.2	93.0	33.9	92.4	35.5	99
100	96.6	25.9	96.1	27.6	95.6	29.2	95.1	30.9	94.6	32.6	94.0	34.2	93.4	35.8	100
200	193.2	51.8	192.3	55.1	191.3	58.5	190.2	61.8	189.1	65.1	187.9	68.4	186.7	71.7	200
300	289.8	77.6	288.4	82.7	286.9	87.7	285.3	92.7	283.7	97.7	281.9	102.6	280.1	107.5	300
400	386.4	103.5	384.5	110.3	382.5	116.9	380.4	123.6	378.2	130.2	375.9	136.8	373.4	143.3	400
500	483.0	129.4	480.6	137.8	478.2	146.2	475.5	154.5	472.8	162.8	469.8	171.0	466.8	179.2	500
600	579.6	155.3	576.8	165.4	573.8	175.4	570.6	185.4	567.3	195.3	563.8	205.2	560.1	215.0	600
700	676.1	181.2	672.9	192.9	669.4	204.7	665.7	216.3	661.9	227.9	657.8	239.4	653.5	250.9	700
800	772.7	207.1	769.0	220.5	765.0	233.9	760.8	247.2	756.4	260.5	751.8	273.6	746.9	286.7	800
900	869.3	232.9	865.1	248.1	860.7	263.1	856.0	278.1	851.0	293.0	845.7	307.8	840.2	322.5	900
距離 Dist. / 航路 Co.	75° Dep.	75° D. Lat.	74° Dep.	74° D. Lat.	73° Dep.	73° D. Lat.	72° Dep.	72° D. Lat.	71° Dep.	71° D. Lat.	70° Dep.	70° D. Lat.	69° Dep.	69° D. Lat.	距離 Dist. / 航路 Co.

距離 Dist. / 航路 Co.	21° D. Lat.	21° Dep.	22° D. Lat.	22° Dep.	23° D. Lat.	23° Dep.	24° D. Lat.	24° Dep.	25° D. Lat.	25° Dep.	26° D. Lat.	26° Dep.	27° D. Lat.	27° Dep.	航路 Co. / 距離 Dist.
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
1	0.9	0.4	0.9	0.4	0.9	0.4	0.9	0.4	0.9	0.4	0.9	0.4	0.9	0.5	1
2	1.9	0.7	1.9	0.7	1.8	0.8	1.8	0.8	1.8	0.8	1.8	0.9	1.8	0.9	2
3	2.8	1.1	2.8	1.1	2.8	1.2	2.7	1.2	2.7	1.3	2.7	1.3	2.7	1.4	3
4	3.7	1.4	3.7	1.5	3.7	1.6	3.7	1.6	3.6	1.7	3.6	1.8	3.6	1.8	4
5	4.7	1.8	4.6	1.9	4.6	2.0	4.6	2.0	4.5	2.1	4.5	2.2	4.5	2.3	5
6	5.6	2.2	5.6	2.2	5.5	2.3	5.5	2.4	5.4	2.5	5.4	2.6	5.3	2.7	6
7	6.5	2.5	6.5	2.6	6.4	2.7	6.4	2.8	6.3	3.0	6.3	3.1	6.2	3.2	7
8	7.5	2.9	7.4	3.0	7.4	3.1	7.3	3.3	7.3	3.4	7.2	3.5	7.1	3.6	8
9	8.4	3.2	8.3	3.4	8.3	3.5	8.2	3.7	8.2	3.8	8.1	3.9	8.0	4.1	9
10	9.3	3.6	9.3	3.7	9.2	3.9	9.1	4.1	9.1	4.2	9.0	4.4	8.9	4.5	10
11	10.3	3.9	10.2	4.1	10.1	4.3	10.0	4.5	10.0	4.6	9.9	4.8	9.8	5.0	11
12	11.2	4.3	11.1	4.5	11.0	4.7	11.0	4.9	10.9	5.1	10.8	5.3	10.7	5.4	12
13	12.1	4.7	12.1	4.9	12.0	5.1	11.9	5.3	11.8	5.5	11.7	5.7	11.6	5.9	13
14	13.1	5.0	13.0	5.2	12.9	5.5	12.8	5.7	12.7	5.9	12.6	6.1	12.5	6.4	14
15	14.0	5.4	13.9	5.6	13.8	5.9	13.7	6.1	13.6	6.3	13.5	6.6	13.4	6.8	15
16	14.9	5.7	14.8	6.0	14.7	6.3	14.6	6.5	14.5	6.8	14.4	7.0	14.3	7.3	16
17	15.9	6.1	15.8	6.4	15.6	6.6	15.5	6.9	15.4	7.2	15.3	7.5	15.1	7.7	17
18	16.8	6.5	16.7	6.7	16.6	7.0	16.4	7.3	16.3	7.6	16.2	7.9	16.0	8.2	18
19	17.7	6.8	17.6	7.1	17.5	7.4	17.4	7.7	17.2	8.0	17.1	8.3	16.9	8.6	19
20	18.7	7.2	18.5	7.5	18.4	7.8	18.3	8.1	18.1	8.5	18.0	8.8	17.8	9.1	20
21	19.6	7.5	19.5	7.9	19.3	8.2	19.2	8.5	19.0	8.9	18.9	9.2	18.7	9.5	21
22	20.5	7.9	20.4	8.2	20.3	8.6	20.1	8.9	19.9	9.3	19.8	9.6	19.6	10.0	22
23	21.5	8.2	21.3	8.6	21.2	9.0	21.0	9.4	20.8	9.7	20.7	10.1	20.5	10.4	23
24	22.4	8.6	22.3	9.0	22.1	9.4	21.9	9.8	21.8	10.1	21.6	10.5	21.4	10.9	24
25	23.3	9.0	23.2	9.4	23.0	9.8	22.8	10.2	22.7	10.6	22.5	11.0	22.3	11.3	25
26	24.3	9.3	24.1	9.7	23.9	10.2	23.8	10.6	23.6	11.0	23.4	11.4	23.2	11.8	26
27	25.2	9.7	25.0	10.1	24.9	10.5	24.7	11.0	24.5	11.4	24.3	11.8	24.1	12.3	27
28	26.1	10.0	26.0	10.5	25.8	10.9	25.6	11.4	25.4	11.8	25.2	12.3	24.9	12.7	28
29	27.1	10.4	26.9	10.9	26.7	11.3	26.5	11.8	26.3	12.3	26.1	12.7	25.8	13.2	29
30	28.0	10.8	27.8	11.2	27.6	11.7	27.4	12.2	27.2	12.7	27.0	13.2	26.7	13.6	30
31	28.9	11.1	28.7	11.6	28.5	12.1	28.3	12.6	28.1	13.1	27.9	13.6	27.6	14.1	31
32	29.9	11.5	29.7	12.0	29.5	12.5	29.2	13.0	29.0	13.5	28.8	14.0	28.5	14.5	32
33	30.8	11.8	30.6	12.4	30.4	12.9	30.1	13.4	29.9	13.9	29.7	14.5	29.4	15.0	33
34	31.7	12.2	31.5	12.7	31.3	13.3	31.1	13.8	30.8	14.4	30.6	14.9	30.3	15.4	34
35	32.7	12.5	32.5	13.1	32.2	13.7	32.0	14.2	31.7	14.8	31.5	15.3	31.2	15.9	35
36	33.6	12.9	33.4	13.5	33.1	14.1	32.9	14.6	32.6	15.2	32.4	15.8	32.1	16.3	36
37	34.5	13.3	34.3	13.9	34.1	14.5	33.8	15.0	33.5	15.6	33.3	16.2	33.0	16.8	37
38	35.5	13.6	35.2	14.2	35.0	14.8	34.7	15.5	34.4	16.1	34.2	16.7	33.9	17.3	38
39	36.4	14.0	36.2	14.6	35.9	15.2	35.6	15.9	35.3	16.5	35.1	17.1	34.7	17.7	39
40	37.3	14.3	37.1	15.0	36.8	15.6	36.5	16.3	36.3	16.9	36.0	17.5	35.6	18.2	40
41	38.3	14.7	38.0	15.4	37.7	16.0	37.5	16.7	37.2	17.3	36.9	18.0	36.5	18.6	41
42	39.2	15.1	38.9	15.7	38.7	16.4	38.4	17.1	38.1	17.7	37.7	18.4	37.4	19.1	42
43	40.1	15.4	39.9	16.1	39.6	16.8	39.3	17.5	39.0	18.2	38.6	18.8	38.3	19.5	43
44	41.1	15.8	40.8	16.5	40.5	17.2	40.2	17.9	39.9	18.6	39.5	19.3	39.2	20.0	44
45	42.0	16.1	41.7	16.9	41.4	17.6	41.1	18.3	40.8	19.0	40.4	19.7	40.1	20.4	45
46	42.9	16.5	42.7	17.2	42.3	18.0	42.0	18.7	41.7	19.4	41.3	20.2	41.0	20.9	46
47	43.9	16.8	43.6	17.6	43.3	18.4	42.9	19.1	42.6	19.9	42.2	20.6	41.9	21.3	47
48	44.8	17.2	44.5	18.0	44.2	18.8	43.9	19.5	43.5	20.3	43.1	21.0	42.8	21.8	48
49	45.7	17.6	45.4	18.4	45.1	19.1	44.8	19.9	44.4	20.7	44.0	21.5	43.7	22.2	49
50	46.7	17.9	46.4	18.7	46.0	19.5	45.7	20.3	45.3	21.1	44.9	21.9	44.6	22.7	50
100	93.4	35.8	92.7	37.5	92.1	39.1	91.4	40.7	90.6	42.3	89.9	43.8	89.1	45.4	100
200	186.7	71.7	185.4	74.9	184.1	78.1	182.7	81.3	181.3	84.5	179.8	87.7	178.2	90.8	200
300	280.1	107.5	278.2	112.4	276.2	117.2	274.1	122.0	271.9	126.8	269.6	131.5	267.3	136.2	300
400	373.4	143.3	370.9	149.8	368.2	156.3	365.4	162.7	362.5	169.0	359.5	175.3	356.4	181.6	400
500	466.8	179.2	463.6	187.3	460.3	195.4	456.8	203.4	453.2	211.3	449.4	219.2	445.5	227.0	500
600	560.1	215.0	556.3	224.8	552.3	234.4	548.1	244.0	543.8	253.6	539.3	263.0	534.6	272.4	600
700	653.5	250.9	649.0	262.2	644.4	273.5	639.5	284.7	634.4	295.8	629.2	306.9	623.7	317.8	700
800	746.9	286.7	741.7	299.7	736.4	312.6	730.8	325.4	725.0	338.1	719.0	350.7	712.8	363.2	800
900	840.2	322.5	834.5	337.1	828.5	351.7	822.2	366.1	815.7	380.4	808.9	394.5	801.9	408.6	900

距離 Dist. / 航路 Co.	69° Dep.	69° D. Lat.	68° Dep.	68° D. Lat.	67° Dep.	67° D. Lat.	66° Dep.	66° D. Lat.	65° Dep.	65° D. Lat.	64° Dep.	64° D. Lat.	63° Dep.	63° D. Lat.	航路 Co. / 距離 Dist.

距離 Dist. / 航路 Co.	21° D. Lat.	21° Dep.	22° D. Lat.	22° Dep.	23° D. Lat.	23° Dep.	24° D. Lat.	24° Dep.	25° D. Lat.	25° Dep.	26° D. Lat.	26° Dep.	27° D. Lat.	27° Dep.	航路 Co. / 距離 Dist.
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
50	46.7	17.9	46.4	18.7	46.0	19.5	45.7	20.3	45.3	21.1	44.9	21.9	44.6	22.7	50
51	47.6	18.3	47.3	19.1	46.9	19.9	46.6	20.7	46.2	21.6	45.8	22.4	45.4	23.2	51
52	48.5	18.6	48.2	19.5	47.9	20.3	47.5	21.2	47.1	22.0	46.7	22.8	46.3	23.6	52
53	49.5	19.0	49.1	19.9	48.8	20.7	48.4	21.6	48.0	22.4	47.6	23.2	47.2	24.1	53
54	50.4	19.4	50.1	20.2	49.7	21.1	49.3	22.0	48.9	22.8	48.5	23.7	48.1	24.5	54
55	51.3	19.7	51.0	20.6	50.6	21.5	50.2	22.4	49.8	23.2	49.4	24.1	49.0	25.0	55
56	52.3	20.1	51.9	21.0	51.5	21.9	51.2	22.8	50.8	23.7	50.3	24.5	49.9	25.4	56
57	53.2	20.4	52.8	21.4	52.5	22.3	52.1	23.2	51.7	24.1	51.2	25.0	50.8	25.9	57
58	54.1	20.8	53.8	21.7	53.4	22.7	53.0	23.6	52.6	24.5	52.1	25.4	51.7	26.3	58
59	55.1	21.1	54.7	22.1	54.3	23.1	53.9	24.0	53.5	24.9	53.0	25.9	52.6	26.8	59
60	56.0	21.5	55.6	22.5	55.2	23.4	54.8	24.4	54.4	25.4	53.9	26.3	53.5	27.2	60
61	56.9	21.9	56.6	22.9	56.2	23.8	55.7	24.8	55.3	25.8	54.8	26.7	54.4	27.7	61
62	57.9	22.2	57.5	23.2	57.1	24.2	56.6	25.2	56.2	26.2	55.7	27.2	55.2	28.1	62
63	58.8	22.6	58.4	23.6	58.0	24.6	57.6	25.6	57.1	26.6	56.6	27.6	56.1	28.6	63
64	59.7	22.9	59.3	24.0	58.9	25.0	58.5	26.0	58.0	27.0	57.5	28.1	57.0	29.1	64
65	60.7	23.3	60.3	24.3	59.8	25.4	59.4	26.4	58.9	27.5	58.4	28.5	57.9	29.5	65
66	61.6	23.7	61.2	24.7	60.8	25.8	60.3	26.8	59.8	27.9	59.3	28.9	58.8	30.0	66
67	62.5	24.0	62.1	25.1	61.7	26.2	61.2	27.3	60.7	28.3	60.2	29.4	59.7	30.4	67
68	63.5	24.4	63.0	25.5	62.6	26.6	62.1	27.7	61.6	28.7	61.1	29.8	60.6	30.9	68
69	64.4	24.7	64.0	25.8	63.5	27.0	63.0	28.1	62.5	29.2	62.0	30.2	61.5	31.3	69
70	65.4	25.1	64.9	26.2	64.4	27.4	63.9	28.5	63.4	29.6	62.9	30.7	62.4	31.8	70
71	66.3	25.4	65.8	26.6	65.4	27.7	64.9	28.9	64.3	30.0	63.8	31.1	63.3	32.2	71
72	67.2	25.8	66.8	27.0	66.3	28.1	65.8	29.3	65.3	30.4	64.7	31.6	64.2	32.7	72
73	68.2	26.2	67.7	27.3	67.2	28.5	66.7	29.7	66.2	30.9	65.6	32.0	65.0	33.1	73
74	69.1	26.5	68.6	27.7	68.1	28.9	67.6	30.1	67.1	31.3	66.5	32.4	65.9	33.6	74
75	70.0	26.9	69.5	28.1	69.0	29.3	68.5	30.5	68.0	31.7	67.4	32.9	66.8	34.0	75
76	71.0	27.2	70.5	28.5	70.0	29.7	69.4	30.9	68.9	32.1	68.3	33.3	67.7	34.5	76
77	71.9	27.6	71.4	28.8	70.9	30.1	70.3	31.3	69.8	32.5	69.2	33.8	68.6	35.0	77
78	72.8	28.0	72.3	29.2	71.8	30.5	71.3	31.7	70.7	33.0	70.1	34.2	69.5	35.4	78
79	73.8	28.3	73.2	29.6	72.7	30.9	72.2	32.1	71.6	33.4	71.0	34.6	70.4	35.9	79
80	74.7	28.7	74.2	30.0	73.6	31.3	73.1	32.5	72.5	33.8	71.9	35.1	71.3	36.3	80
81	75.6	29.0	75.1	30.3	74.6	31.6	74.0	32.9	73.4	34.2	72.8	35.5	72.2	36.8	81
82	76.6	29.4	76.0	30.7	75.5	32.0	74.9	33.4	74.3	34.7	73.7	35.9	73.1	37.2	82
83	77.5	29.7	77.0	31.1	76.4	32.4	75.8	33.8	75.2	35.1	74.6	36.4	74.0	37.7	83
84	78.4	30.1	77.9	31.5	77.3	32.8	76.7	34.2	76.1	35.5	75.5	36.8	74.8	38.1	84
85	79.4	30.5	78.8	31.8	78.2	33.2	77.7	34.6	77.0	35.9	76.4	37.3	75.7	38.6	85
86	80.3	30.8	79.7	32.2	79.2	33.6	78.6	35.0	77.9	36.3	77.3	37.7	76.6	39.0	86
87	81.2	31.2	80.7	32.6	80.1	34.0	79.5	35.4	78.8	36.8	78.2	38.1	77.5	39.5	87
88	82.2	31.5	81.6	33.0	81.0	34.4	80.4	35.8	79.8	37.2	79.1	38.6	78.4	40.0	88
89	83.1	31.9	82.5	33.3	81.9	34.8	81.3	36.2	80.7	37.6	80.0	39.0	79.3	40.4	89
90	84.0	32.3	83.4	33.7	82.8	35.2	82.2	36.6	81.6	38.0	80.9	39.5	80.2	40.9	90
91	85.0	32.6	84.4	34.1	83.8	35.6	83.1	37.0	82.5	38.5	81.8	39.9	81.1	41.3	91
92	85.9	33.0	85.3	34.5	84.7	35.9	84.0	37.4	83.4	38.9	82.7	40.3	82.0	41.8	92
93	86.8	33.3	86.2	34.8	85.6	36.3	85.0	37.8	84.3	39.3	83.6	40.8	82.9	42.2	93
94	87.8	33.7	87.2	35.2	86.5	36.7	85.9	38.2	85.2	39.7	84.5	41.2	83.8	42.7	94
95	88.7	34.0	88.1	35.6	87.4	37.1	86.8	38.6	86.1	40.1	85.4	41.6	84.6	43.1	95
96	89.6	34.4	89.0	36.0	88.4	37.5	87.7	39.0	87.0	40.6	86.3	42.1	85.5	43.6	96
97	90.6	34.8	89.9	36.3	89.3	37.9	88.6	39.5	87.9	41.0	87.2	42.5	86.4	44.0	97
98	91.5	35.1	90.9	36.7	90.2	38.3	89.5	39.9	88.8	41.4	88.1	43.0	87.3	44.5	98
99	92.4	35.5	91.8	37.1	91.1	38.7	90.4	40.3	89.7	41.8	89.0	43.4	88.2	44.9	99
100	93.4	35.8	92.7	37.5	92.1	39.1	91.4	40.7	90.6	42.3	89.9	43.8	89.1	45.4	100
200	186.7	71.7	185.4	74.9	184.1	78.1	182.7	81.3	181.3	84.5	179.8	87.7	178.2	90.8	200
300	280.1	107.5	278.2	112.4	276.2	117.2	274.1	122.0	271.9	126.8	269.6	131.5	267.3	136.2	300
400	373.4	143.3	370.9	149.8	368.2	156.3	365.4	162.7	362.5	169.0	359.5	175.3	356.4	181.6	400
500	466.8	179.2	463.6	187.3	460.3	195.4	456.8	203.4	453.2	211.3	449.4	219.2	445.5	227.0	500
600	560.1	215.0	556.3	224.8	552.3	234.4	548.1	244.0	543.8	253.6	539.3	263.0	534.6	272.4	600
700	653.5	250.9	649.0	262.2	644.4	273.5	639.5	284.7	634.4	295.8	629.2	306.9	623.7	317.8	700
800	746.9	286.7	741.7	299.7	736.4	312.6	730.8	325.4	725.0	338.1	719.0	350.7	712.8	363.2	800
900	840.2	322.5	834.5	337.1	828.5	351.7	822.2	366.1	815.7	380.4	808.9	394.5	801.9	408.6	900

距離 Dist. / 航路 Co.	69° Dep.	69° D. Lat.	68° Dep.	68° D. Lat.	67° Dep.	67° D. Lat.	66° Dep.	66° D. Lat.	65° Dep.	65° D. Lat.	64° Dep.	64° D. Lat.	63° Dep.	63° D. Lat.	航路 Co. / 距離 Dist.

距離 Dist. / 航路 Co.	27° D. Lat.	27° Dep.	28° D. Lat.	28° Dep.	29° D. Lat.	29° Dep.	30° D. Lat.	30° Dep.	31° D. Lat.	31° Dep.	32° D. Lat.	32° Dep.	33° D. Lat.	33° Dep.	航路 Co. / 距離 Dist.
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
1	0.9	0.5	0.9	0.5	0.9	0.5	0.9	0.5	0.9	0.5	0.8	0.5	0.8	0.5	1
2	1.8	0.9	1.8	0.9	1.7	1.0	1.7	1.0	1.7	1.0	1.7	1.1	1.7	1.1	2
3	2.7	1.4	2.6	1.4	2.6	1.5	2.6	1.5	2.6	1.5	2.5	1.6	2.5	1.6	3
4	3.6	1.8	3.5	1.9	3.5	1.9	3.5	2.0	3.4	2.1	3.4	2.1	3.4	2.2	4
5	4.5	2.3	4.4	2.3	4.4	2.4	4.3	2.5	4.3	2.6	4.2	2.6	4.2	2.7	5
6	5.3	2.7	5.3	2.8	5.2	2.9	5.2	3.0	5.1	3.1	5.1	3.2	5.0	3.3	6
7	6.2	3.2	6.2	3.3	6.1	3.4	6.1	3.5	6.0	3.6	5.9	3.7	5.9	3.8	7
8	7.1	3.6	7.1	3.8	7.0	3.9	6.9	4.0	6.9	4.1	6.8	4.2	6.7	4.4	8
9	8.0	4.1	7.9	4.2	7.9	4.4	7.8	4.5	7.7	4.6	7.6	4.8	7.5	4.9	9
10	8.9	4.5	8.8	4.7	8.7	4.8	8.7	5.0	8.6	5.2	8.5	5.3	8.4	5.4	10
11	9.8	5.0	9.7	5.2	9.6	5.3	9.5	5.5	9.4	5.7	9.3	5.8	9.2	6.0	11
12	10.7	5.4	10.6	5.6	10.5	5.8	10.4	6.0	10.3	6.2	10.2	6.4	10.1	6.5	12
13	11.6	5.9	11.5	6.1	11.4	6.3	11.3	6.5	11.1	6.7	11.0	6.9	10.9	7.1	13
14	12.5	6.4	12.4	6.6	12.2	6.8	12.1	7.0	12.0	7.2	11.9	7.4	11.7	7.6	14
15	13.4	6.8	13.2	7.0	13.1	7.3	13.0	7.5	12.9	7.7	12.7	7.9	12.6	8.2	15
16	14.3	7.3	14.1	7.5	14.0	7.8	13.9	8.0	13.7	8.2	13.6	8.5	13.4	8.7	16
17	15.1	7.7	15.0	8.0	14.9	8.2	14.7	8.5	14.6	8.8	14.4	9.0	14.3	9.3	17
18	16.0	8.2	15.9	8.5	15.7	8.7	15.6	9.0	15.4	9.3	15.3	9.5	15.1	9.8	18
19	16.9	8.6	16.8	8.9	16.6	9.2	16.5	9.5	16.3	9.8	16.1	10.1	15.9	10.3	19
20	17.8	9.1	17.7	9.4	17.5	9.7	17.3	10.0	17.1	10.3	17.0	10.6	16.8	10.9	20
21	18.7	9.5	18.5	9.9	18.4	10.2	18.2	10.5	18.0	10.8	17.8	11.1	17.6	11.4	21
22	19.6	10.0	19.4	10.3	19.2	10.7	19.1	11.0	18.9	11.3	18.7	11.7	18.5	12.0	22
23	20.5	10.4	20.3	10.8	20.1	11.2	19.9	11.5	19.7	11.8	19.5	12.2	19.3	12.5	23
24	21.4	10.9	21.2	11.3	21.0	11.6	20.8	12.0	20.6	12.4	20.4	12.7	20.1	13.1	24
25	22.3	11.3	22.1	11.7	21.9	12.1	21.7	12.5	21.4	12.9	21.2	13.2	21.0	13.6	25
26	23.2	11.8	23.0	12.2	22.7	12.6	22.5	13.0	22.3	13.4	22.0	13.8	21.8	14.2	26
27	24.1	12.3	23.8	12.7	23.6	13.1	23.4	13.5	23.1	13.9	22.9	14.3	22.6	14.7	27
28	24.9	12.7	24.7	13.1	24.5	13.6	24.2	14.0	24.0	14.4	23.7	14.8	23.5	15.2	28
29	25.8	13.2	25.6	13.6	25.4	14.1	25.1	14.5	24.9	14.9	24.6	15.4	24.3	15.8	29
30	26.7	13.6	26.5	14.1	26.2	14.5	26.0	15.0	25.7	15.5	25.4	15.9	25.2	16.3	30
31	27.6	14.1	27.4	14.6	27.1	15.0	26.8	15.5	26.6	16.0	26.3	16.4	26.0	16.9	31
32	28.5	14.5	28.3	15.0	28.0	15.5	27.7	16.0	27.4	16.5	27.1	17.0	26.8	17.4	32
33	29.4	15.0	29.1	15.5	28.9	16.0	28.6	16.5	28.3	17.0	28.0	17.5	27.7	18.0	33
34	30.3	15.4	30.0	16.0	29.7	16.5	29.4	17.0	29.1	17.5	28.8	18.0	28.5	18.5	34
35	31.2	15.9	30.9	16.4	30.6	17.0	30.3	17.5	30.0	18.0	29.7	18.5	29.4	19.1	35
36	32.1	16.3	31.8	16.9	31.5	17.5	31.2	18.0	30.9	18.5	30.5	19.1	30.2	19.6	36
37	33.0	16.8	32.7	17.4	32.4	17.9	32.0	18.5	31.7	19.1	31.4	19.6	31.0	20.2	37
38	33.9	17.3	33.6	17.8	33.2	18.4	32.9	19.0	32.6	19.6	32.2	20.1	31.9	20.7	38
39	34.7	17.7	34.4	18.3	34.1	18.9	33.8	19.5	33.4	20.1	33.1	20.7	32.7	21.2	39
40	35.6	18.2	35.3	18.8	35.0	19.4	34.6	20.0	34.3	20.6	33.9	21.2	33.5	21.8	40
41	36.5	18.6	36.2	19.2	35.9	19.9	35.5	20.5	35.1	21.1	34.8	21.7	34.4	22.3	41
42	37.4	19.1	37.1	19.7	36.7	20.4	36.4	21.0	36.0	21.6	35.6	22.3	35.2	22.9	42
43	38.3	19.5	38.0	20.2	37.6	20.8	37.2	21.5	36.9	22.1	36.5	22.8	36.1	23.4	43
44	39.2	20.0	38.8	20.7	38.5	21.3	38.1	22.0	37.7	22.7	37.3	23.3	36.9	24.0	44
45	40.1	20.4	39.7	21.1	39.4	21.8	39.0	22.5	38.6	23.2	38.2	23.8	37.7	24.5	45
46	41.0	20.9	40.6	21.6	40.2	22.3	39.8	23.0	39.4	23.7	39.0	24.4	38.6	25.1	46
47	41.9	21.3	41.5	22.1	41.1	22.8	40.7	23.5	40.3	24.2	39.9	24.9	39.4	25.6	47
48	42.8	21.8	42.4	22.5	42.0	23.3	41.6	24.0	41.1	24.7	40.7	25.4	40.3	26.1	48
49	43.7	22.2	43.3	23.0	42.9	23.8	42.4	24.5	42.0	25.2	41.6	26.0	41.1	26.7	49
50	44.6	22.7	44.1	23.5	43.7	24.2	43.3	25.0	42.9	25.8	42.4	26.5	41.9	27.2	50
100	89.1	45.4	88.3	46.9	87.5	48.5	86.6	50.0	85.7	51.5	84.8	53.0	83.9	54.5	100
200	178.2	90.8	176.6	93.9	174.9	97.0	173.2	100.0	171.4	103.0	169.6	106.0	167.7	108.9	200
300	267.3	136.2	264.9	140.8	262.4	145.4	259.8	150.0	257.2	154.5	254.4	159.0	251.6	163.4	300
400	356.4	181.6	353.2	187.8	349.8	193.9	346.4	200.0	342.9	206.0	339.2	212.0	335.5	217.9	400
500	445.5	227.0	441.5	234.7	437.3	242.4	433.0	250.0	428.6	257.5	424.0	265.0	419.3	272.3	500
600	534.6	272.4	529.8	281.7	524.8	290.9	519.6	300.0	514.3	309.0	508.8	318.0	503.2	326.8	600
700	623.7	317.8	618.1	328.6	612.2	339.4	606.2	350.0	600.0	360.5	593.6	370.9	587.1	381.2	700
800	712.8	363.2	706.4	375.6	699.7	387.8	692.8	400.0	685.7	412.0	678.4	423.9	670.9	435.7	800
900	801.9	408.6	794.7	422.5	787.2	436.3	779.4	450.0	771.5	463.5	763.2	476.9	754.8	490.2	900
距離 Dist. / 航路 Co.	Dep.	D. Lat. 63°	Dep.	D. Lat. 62°	Dep.	D. Lat. 61°	Dep.	D. Lat. 60°	Dep.	D. Lat. 59°	Dep.	D. Lat. 58°	Dep.	D. Lat. 57°	航路 Co. / 距離 Dist.

距離 Dist. / 航路 Co.	27° D. Lat.	27° Dep.	28° D. Lat.	28° Dep.	29° D. Lat.	29° Dep.	30° D. Lat.	30° Dep.	31° D. Lat.	31° Dep.	32° D. Lat.	32° Dep.	33° D. Lat.	33° Dep.	航路 Co. / 距離 Dist.
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
50	44.6	22.7	44.1	23.5	43.7	24.2	43.3	25.0	42.9	25.8	42.4	26.5	41.9	27.2	50
51	45.4	23.2	45.0	23.9	44.6	24.7	44.2	25.5	43.7	26.3	43.3	27.0	42.8	27.8	51
52	46.3	23.6	45.9	24.4	45.5	25.2	45.0	26.0	44.6	26.8	44.1	27.6	43.6	28.3	52
53	47.2	24.1	46.8	24.9	46.4	25.7	45.9	26.5	45.4	27.3	44.9	28.1	44.4	28.9	53
54	48.1	24.5	47.7	25.4	47.2	26.2	46.8	27.0	46.3	27.8	45.8	28.6	45.3	29.4	54
55	49.0	25.0	48.6	25.8	48.1	26.7	47.6	27.5	47.1	28.3	46.6	29.1	46.1	30.0	55
56	49.9	25.4	49.4	26.3	49.0	27.1	48.5	28.0	48.0	28.8	47.5	29.7	47.0	30.5	56
57	50.8	25.9	50.3	26.8	49.9	27.6	49.4	28.5	48.9	29.4	48.3	30.2	47.8	31.0	57
58	51.7	26.3	51.2	27.2	50.7	28.1	50.2	29.0	49.7	29.9	49.2	30.7	48.6	31.6	58
59	52.6	26.8	52.1	27.7	51.6	28.6	51.1	29.5	50.6	30.4	50.0	31.3	49.5	32.1	59
60	53.5	27.2	53.0	28.2	52.5	29.1	52.0	30.0	51.4	30.9	50.9	31.8	50.3	32.7	60
61	54.4	27.7	53.9	28.6	53.4	29.6	52.8	30.5	52.3	31.4	51.7	32.3	51.2	33.2	61
62	55.2	28.1	54.7	29.1	54.2	30.1	53.7	31.0	53.1	31.9	52.6	32.9	52.0	33.8	62
63	56.1	28.6	55.6	29.6	55.1	30.5	54.6	31.5	54.0	32.4	53.4	33.4	52.8	34.3	63
64	57.0	29.1	56.5	30.0	56.0	31.0	55.4	32.0	54.9	33.0	54.3	33.9	53.7	34.9	64
65	57.9	29.5	57.4	30.5	56.9	31.5	56.3	32.5	55.7	33.5	55.1	34.4	54.5	35.4	65
66	58.8	30.0	58.3	31.0	57.7	32.0	57.2	33.0	56.6	34.0	56.0	35.0	55.4	35.9	66
67	59.7	30.4	59.2	31.5	58.6	32.5	58.0	33.5	57.4	34.5	56.8	35.5	56.2	36.5	67
68	60.6	30.9	60.0	31.9	59.5	33.0	58.9	34.0	58.3	35.0	57.7	36.0	57.0	37.0	68
69	61.5	31.3	60.9	32.4	60.3	33.5	59.8	34.5	59.1	35.5	58.5	36.6	57.9	37.6	69
70	62.4	31.8	61.8	32.9	61.2	33.9	60.6	35.0	60.0	36.1	59.4	37.1	58.7	38.1	70
71	63.3	32.2	62.7	33.3	62.1	34.4	61.5	35.5	60.9	36.6	60.2	37.6	59.5	38.7	71
72	64.2	32.7	63.6	33.8	63.0	34.9	62.4	36.0	61.7	37.1	61.1	38.2	60.4	39.2	72
73	65.0	33.1	64.5	34.3	63.8	35.4	63.2	36.5	62.6	37.6	61.9	38.7	61.2	39.8	73
74	65.9	33.6	65.3	34.7	64.7	35.9	64.1	37.0	63.4	38.1	62.8	39.2	62.1	40.3	74
75	66.8	34.0	66.2	35.2	65.6	36.4	65.0	37.5	64.3	38.6	63.6	39.7	62.9	40.8	75
76	67.7	34.5	67.1	35.7	66.5	36.8	65.8	38.0	65.1	39.1	64.5	40.3	63.7	41.4	76
77	68.6	35.0	68.0	36.1	67.3	37.3	66.7	38.5	66.0	39.7	65.3	40.8	64.6	41.9	77
78	69.5	35.4	68.9	36.6	68.2	37.8	67.5	39.0	66.9	40.2	66.1	41.3	65.4	42.5	78
79	70.4	35.9	69.8	37.1	69.1	38.3	68.4	39.5	67.7	40.7	67.0	41.9	66.3	43.0	79
80	71.3	36.3	70.6	37.6	70.0	38.8	69.3	40.0	68.6	41.2	67.8	42.4	67.1	43.6	80
81	72.2	36.8	71.5	38.0	70.8	39.3	70.1	40.5	69.4	41.7	68.7	42.9	67.9	44.1	81
82	73.1	37.2	72.4	38.5	71.7	39.8	71.0	41.0	70.3	42.2	69.5	43.5	68.8	44.7	82
83	74.0	37.7	73.3	39.0	72.6	40.2	71.9	41.5	71.1	42.7	70.4	44.0	69.6	45.2	83
84	74.8	38.1	74.2	39.4	73.5	40.7	72.7	42.0	72.0	43.3	71.2	44.5	70.4	45.7	84
85	75.7	38.6	75.1	39.9	74.3	41.2	73.6	42.5	72.9	43.8	72.1	45.0	71.3	46.3	85
86	76.6	39.0	75.9	40.4	75.2	41.7	74.5	43.0	73.7	44.3	72.9	45.6	72.1	46.8	86
87	77.5	39.5	76.8	40.8	76.1	42.2	75.3	43.5	74.6	44.8	73.8	46.1	73.0	47.4	87
88	78.4	40.0	77.7	41.3	77.0	42.7	76.2	44.0	75.4	45.3	74.6	46.6	73.8	47.9	88
89	79.3	40.4	78.6	41.8	77.8	43.1	77.1	44.5	76.3	45.8	75.5	47.2	74.6	48.5	89
90	80.2	40.9	79.5	42.3	78.7	43.6	77.9	45.0	77.1	46.4	76.3	47.7	75.5	49.0	90
91	81.1	41.3	80.3	42.7	79.6	44.1	78.8	45.5	78.0	46.9	77.2	48.2	76.3	49.6	91
92	82.0	41.8	81.2	43.2	80.5	44.6	79.7	46.0	78.9	47.4	78.0	48.8	77.2	50.1	92
93	82.9	42.2	82.1	43.7	81.3	45.1	80.5	46.5	79.7	47.9	78.9	49.3	78.0	50.7	93
94	83.8	42.7	83.0	44.1	82.2	45.6	81.4	47.0	80.6	48.4	79.7	49.8	78.8	51.2	94
95	84.6	43.1	83.9	44.6	83.1	46.1	82.3	47.5	81.4	48.9	80.6	50.3	79.7	51.7	95
96	85.5	43.6	84.8	45.1	84.0	46.5	83.1	48.0	82.3	49.4	81.4	50.9	80.5	52.3	96
97	86.4	44.0	85.6	45.5	84.8	47.0	84.0	48.5	83.1	50.0	82.3	51.4	81.4	52.8	97
98	87.3	44.5	86.5	46.0	85.7	47.5	84.9	49.0	84.0	50.5	83.1	51.9	82.2	53.4	98
99	88.2	44.9	87.4	46.5	86.6	48.0	85.7	49.5	84.9	51.0	84.0	52.5	83.0	53.9	99
100	89.1	45.4	88.3	46.9	87.5	48.5	86.6	50.0	85.7	51.5	84.8	53.0	83.9	54.5	100
200	178.2	90.8	176.6	93.9	174.9	97.0	173.2	100.0	171.4	103.0	169.6	106.0	167.7	108.9	200
300	267.3	136.2	264.9	140.8	262.4	145.4	259.8	150.0	257.2	154.5	254.4	159.0	251.6	163.4	300
400	356.4	181.6	353.2	187.8	349.8	193.9	346.4	200.0	342.9	206.0	339.2	212.0	335.5	217.9	400
500	445.5	227.0	441.5	234.7	437.3	242.4	433.0	250.0	428.6	257.5	424.0	265.0	419.3	272.3	500
600	534.6	272.4	529.8	281.7	524.8	290.9	519.6	300.0	514.3	309.0	508.8	318.0	503.2	326.8	600
700	623.7	317.8	618.1	328.6	612.2	339.4	606.2	350.0	600.0	360.5	593.6	370.9	587.1	381.2	700
800	712.8	363.2	706.4	375.6	699.7	387.8	692.8	400.0	685.7	412.0	678.4	423.9	670.9	435.7	800
900	801.9	408.6	794.7	422.5	787.2	436.3	779.4	450.0	771.5	463.5	763.2	476.9	754.8	490.2	900
距離 Dist. / 航路 Co.	Dep.	D. Lat. 63°	Dep.	D. Lat. 62°	Dep.	D. Lat. 61°	Dep.	D. Lat. 60°	Dep.	D. Lat. 59°	Dep.	D. Lat. 58°	Dep.	D. Lat. 57°	航路 Co. / 距離 Dist.

距離 Dist. / 航路 Co.	33° D. Lat.	33° Dep.	34° D. Lat.	34° Dep.	35° D. Lat.	35° Dep.	36° D. Lat.	36° Dep.	37° D. Lat.	37° Dep.	38° D. Lat.	38° Dep.	39° D. Lat.	39° Dep.	航路 Co. / 距離 Dist.
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
1	0.8	0.5	0.8	0.6	0.8	0.6	0.8	0.6	0.8	0.6	0.8	0.6	0.8	0.6	1
2	1.7	1.1	1.7	1.1	1.6	1.1	1.6	1.2	1.6	1.2	1.6	1.2	1.6	1.3	2
3	2.5	1.6	2.5	1.7	2.5	1.7	2.4	1.8	2.4	1.8	2.4	1.8	2.3	1.9	3
4	3.4	2.2	3.3	2.2	3.3	2.3	3.2	2.4	3.2	2.4	3.2	2.5	3.1	2.5	4
5	4.2	2.7	4.1	2.8	4.1	2.9	4.0	2.9	4.0	3.0	3.9	3.1	3.9	3.1	5
6	5.0	3.3	5.0	3.4	4.9	3.4	4.9	3.5	4.8	3.6	4.7	3.7	4.7	3.8	6
7	5.9	3.8	5.8	3.9	5.7	4.0	5.7	4.1	5.6	4.2	5.5	4.3	5.4	4.4	7
8	6.7	4.4	6.6	4.5	6.6	4.6	6.5	4.7	6.4	4.8	6.3	4.9	6.2	5.0	8
9	7.5	4.9	7.5	5.0	7.4	5.2	7.3	5.3	7.2	5.4	7.1	5.5	7.0	5.7	9
10	8.4	5.4	8.3	5.6	8.2	5.7	8.1	5.9	8.0	6.0	7.9	6.2	7.8	6.3	10
11	9.2	6.0	9.1	6.2	9.0	6.3	8.9	6.5	8.8	6.6	8.7	6.8	8.5	6.9	11
12	10.1	6.5	9.9	6.7	9.8	6.9	9.7	7.1	9.6	7.2	9.5	7.4	9.3	7.6	12
13	10.9	7.1	10.8	7.3	10.6	7.5	10.5	7.6	10.4	7.8	10.2	8.0	10.1	8.2	13
14	11.7	7.6	11.6	7.8	11.5	8.0	11.3	8.2	11.2	8.4	11.0	8.6	10.9	8.8	14
15	12.6	8.2	12.4	8.4	12.3	8.6	12.1	8.8	12.0	9.0	11.8	9.2	11.7	9.4	15
16	13.4	8.7	13.3	8.9	13.1	9.2	12.9	9.4	12.8	9.6	12.6	9.9	12.4	10.1	16
17	14.3	9.3	14.1	9.5	13.9	9.8	13.8	10.0	13.6	10.2	13.4	10.5	13.2	10.7	17
18	15.1	9.8	14.9	10.1	14.7	10.3	14.6	10.6	14.4	10.8	14.2	11.1	14.0	11.3	18
19	15.9	10.3	15.8	10.6	15.6	10.9	15.4	11.2	15.2	11.4	15.0	11.7	14.8	12.0	19
20	16.8	10.9	16.6	11.2	16.4	11.5	16.2	11.8	16.0	12.0	15.8	12.3	15.5	12.6	20
21	17.6	11.4	17.4	11.7	17.2	12.0	17.0	12.3	16.8	12.6	16.5	12.9	16.3	13.2	21
22	18.5	12.0	18.2	12.3	18.0	12.6	17.8	12.9	17.6	13.2	17.3	13.5	17.1	13.8	22
23	19.3	12.5	19.1	12.9	18.8	13.2	18.6	13.5	18.4	13.8	18.1	14.2	17.9	14.5	23
24	20.1	13.1	19.9	13.4	19.7	13.8	19.4	14.1	19.2	14.4	18.9	14.8	18.7	15.1	24
25	21.0	13.6	20.7	14.0	20.5	14.3	20.2	14.7	20.0	15.0	19.7	15.4	19.4	15.7	25
26	21.8	14.2	21.6	14.5	21.3	14.9	21.0	15.3	20.8	15.6	20.5	16.0	20.2	16.4	26
27	22.6	14.7	22.4	15.1	22.1	15.5	21.8	15.9	21.6	16.2	21.3	16.6	21.0	17.0	27
28	23.5	15.2	23.2	15.7	22.9	16.1	22.7	16.5	22.4	16.9	22.1	17.2	21.8	17.6	28
29	24.3	15.8	24.0	16.2	23.8	16.6	23.5	17.0	23.2	17.5	22.9	17.9	22.5	18.3	29
30	25.2	16.3	24.9	16.8	24.6	17.2	24.3	17.6	24.0	18.1	23.6	18.5	23.3	18.9	30
31	26.0	16.9	25.7	17.3	25.4	17.8	25.1	18.2	24.8	18.7	24.4	19.1	24.1	19.5	31
32	26.8	17.4	26.5	17.9	26.2	18.4	25.9	18.8	25.6	19.3	25.2	19.7	24.9	20.1	32
33	27.7	18.0	27.4	18.5	27.0	18.9	26.7	19.4	26.4	19.9	26.0	20.3	25.6	20.8	33
34	28.5	18.5	28.2	19.0	27.9	19.5	27.5	20.0	27.2	20.5	26.8	20.9	26.4	21.4	34
35	29.4	19.1	29.0	19.6	28.7	20.1	28.3	20.6	28.0	21.1	27.6	21.5	27.2	22.0	35
36	30.2	19.6	29.8	20.1	29.5	20.6	29.1	21.2	28.8	21.7	28.4	22.2	28.0	22.7	36
37	31.0	20.2	30.7	20.7	30.3	21.2	29.9	21.7	29.5	22.3	29.2	22.8	28.8	23.3	37
38	31.9	20.7	31.5	21.2	31.1	21.8	30.7	22.3	30.3	22.9	29.9	23.4	29.5	23.9	38
39	32.7	21.2	32.3	21.8	31.9	22.4	31.6	22.9	31.1	23.5	30.7	24.0	30.3	24.5	39
40	33.5	21.8	33.2	22.4	32.8	22.9	32.4	23.5	31.9	24.1	31.5	24.6	31.1	25.2	40
41	34.4	22.3	34.0	22.9	33.6	23.5	33.2	24.1	32.7	24.7	32.3	25.2	31.9	25.8	41
42	35.2	22.9	34.8	23.5	34.4	24.1	34.0	24.7	33.5	25.3	33.1	25.9	32.6	26.4	42
43	36.1	23.4	35.6	24.0	35.2	24.7	34.8	25.3	34.3	25.9	33.9	26.5	33.4	27.1	43
44	36.9	24.0	36.5	24.6	36.0	25.2	35.6	25.9	35.1	26.5	34.7	27.1	34.2	27.7	44
45	37.7	24.5	37.3	25.2	36.9	25.8	36.4	26.5	35.9	27.1	35.5	27.7	35.0	28.3	45
46	38.6	25.1	38.1	25.7	37.7	26.4	37.2	27.0	36.7	27.7	36.2	28.3	35.7	28.9	46
47	39.4	25.6	39.0	26.3	38.5	27.0	38.0	27.6	37.5	28.3	37.0	28.9	36.5	29.6	47
48	40.3	26.1	39.8	26.8	39.3	27.5	38.8	28.2	38.3	28.9	37.8	29.6	37.3	30.2	48
49	41.1	26.7	40.6	27.4	40.1	28.1	39.6	28.8	39.1	29.5	38.6	30.2	38.1	30.8	49
50	41.9	27.2	41.5	28.0	41.0	28.7	40.5	29.4	39.9	30.1	39.4	30.8	38.9	31.5	50
100	83.9	54.5	82.9	55.9	81.9	57.4	80.9	58.8	79.9	60.2	78.8	61.6	77.7	62.9	100
200	167.7	108.9	165.8	111.8	163.8	114.7	161.8	117.6	159.7	120.4	157.6	123.1	155.4	125.9	200
300	251.6	163.4	248.7	167.8	245.7	172.1	242.7	176.3	239.6	180.5	236.4	184.7	233.1	188.8	300
400	335.5	217.9	331.6	223.7	327.7	229.4	323.6	235.1	319.5	240.7	315.2	246.3	310.9	251.7	400
500	419.3	272.3	414.5	279.6	409.6	286.8	404.5	293.9	399.3	300.9	394.0	307.8	388.6	314.7	500
600	503.2	326.8	497.4	335.5	491.5	344.1	485.4	352.7	479.2	361.1	472.8	369.4	466.3	377.6	600
700	587.1	381.2	580.3	391.4	573.4	401.5	566.3	411.4	559.0	421.3	551.6	431.0	544.0	440.5	700
800	670.9	435.7	663.2	447.4	655.3	458.9	647.2	470.2	638.9	481.5	630.4	492.5	621.7	503.5	800
900	754.8	490.2	746.1	503.3	737.2	516.2	728.1	529.0	718.8	541.6	709.2	554.1	699.4	566.4	900

距離 Dist. / 航路 Co.	57° Dep.	57° D. Lat.	56° Dep.	56° D. Lat.	55° Dep.	55° D. Lat.	54° Dep.	54° D. Lat.	53° Dep.	53° D. Lat.	52° Dep.	52° D. Lat.	51° Dep.	51° D. Lat.	航路 Co. / 距離 Dist.

距離 Dist. / 航路 Co.	33° D. Lat.	33° Dep.	34° D. Lat.	34° Dep.	35° D. Lat.	35° Dep.	36° D. Lat.	36° Dep.	37° D. Lat.	37° Dep.	38° D. Lat.	38° Dep.	39° D. Lat.	39° Dep.	航路 Co. / 距離 Dist.
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
50	41.9	27.2	41.5	28.0	41.0	28.7	40.5	29.4	39.9	30.1	39.4	30.8	38.9	31.5	50
51	42.8	27.8	42.3	28.5	41.8	29.3	41.3	30.0	40.7	30.7	40.2	31.4	39.6	32.1	51
52	43.6	28.3	43.1	29.1	42.6	29.8	42.1	30.6	41.5	31.3	41.0	32.0	40.4	32.7	52
53	44.4	28.9	43.9	29.6	43.4	30.4	42.9	31.2	42.3	31.9	41.8	32.6	41.2	33.4	53
54	45.3	29.4	44.8	30.2	44.2	31.0	43.7	31.7	43.1	32.5	42.6	33.2	42.0	34.0	54
55	46.1	30.0	45.6	30.8	45.1	31.5	44.5	32.3	43.9	33.1	43.3	33.9	42.7	34.6	55
56	47.0	30.5	46.4	31.3	45.9	32.1	45.3	32.9	44.7	33.7	44.1	34.5	43.5	35.2	56
57	47.8	31.0	47.3	31.9	46.7	32.7	46.1	33.5	45.5	34.3	44.9	35.1	44.3	35.9	57
58	48.6	31.6	48.1	32.4	47.5	33.3	46.9	34.1	46.3	34.9	45.7	35.7	45.1	36.5	58
59	49.5	32.1	48.9	33.0	48.3	33.8	47.7	34.7	47.1	35.5	46.5	36.3	45.9	37.1	59
60	50.3	32.7	49.7	33.6	49.1	34.4	48.5	35.3	47.9	36.1	47.3	36.9	46.6	37.8	60
61	51.2	33.2	50.6	34.1	50.0	35.0	49.4	35.9	48.7	36.7	48.1	37.6	47.4	38.4	61
62	52.0	33.8	51.4	34.7	50.8	35.6	50.2	36.4	49.5	37.3	48.9	38.2	48.2	39.0	62
63	52.8	34.3	52.2	35.2	51.6	36.1	51.0	37.0	50.3	37.9	49.6	38.8	49.0	39.6	63
64	53.7	34.9	53.1	35.8	52.4	36.7	51.8	37.6	51.1	38.5	50.4	39.4	49.7	40.3	64
65	54.5	35.4	53.9	36.3	53.2	37.3	52.6	38.2	51.9	39.1	51.2	40.0	50.5	40.9	65
66	55.4	35.9	54.7	36.9	54.1	37.9	53.4	38.8	52.7	39.7	52.0	40.6	51.3	41.5	66
67	56.2	36.5	55.5	37.5	54.9	38.4	54.2	39.4	53.5	40.3	52.8	41.2	52.1	42.2	67
68	57.0	37.0	56.4	38.0	55.7	39.0	55.0	40.0	54.3	40.9	53.6	41.9	52.8	42.8	68
69	57.9	37.6	57.2	38.6	56.5	39.6	55.8	40.6	55.1	41.5	54.4	42.5	53.6	43.4	69
70	58.7	38.1	58.0	39.1	57.3	40.2	56.6	41.1	55.9	42.1	55.2	43.1	54.4	44.1	70
71	59.5	38.7	58.9	39.7	58.2	40.7	57.4	41.7	56.7	42.7	55.9	43.7	55.2	44.7	71
72	60.4	39.2	59.7	40.3	59.0	41.3	58.2	42.3	57.5	43.3	56.7	44.3	56.0	45.3	72
73	61.2	39.8	60.5	40.8	59.8	41.9	59.1	42.9	58.3	43.9	57.5	44.9	56.7	45.9	73
74	62.1	40.3	61.3	41.4	60.6	42.4	59.9	43.5	59.1	44.5	58.3	45.6	57.5	46.6	74
75	62.9	40.8	62.2	41.9	61.4	43.0	60.7	44.1	59.9	45.1	59.1	46.2	58.3	47.2	75
76	63.7	41.4	63.0	42.5	62.3	43.6	61.5	44.7	60.7	45.7	59.9	46.8	59.1	47.8	76
77	64.6	41.9	63.8	43.1	63.1	44.2	62.3	45.3	61.5	46.3	60.7	47.4	59.8	48.5	77
78	65.4	42.5	64.7	43.6	63.9	44.7	63.1	45.8	62.3	46.9	61.5	48.0	60.6	49.1	78
79	66.3	43.0	65.5	44.2	64.7	45.3	63.9	46.4	63.1	47.5	62.3	48.6	61.4	49.7	79
80	67.1	43.6	66.3	44.7	65.5	45.9	64.7	47.0	63.9	48.1	63.0	49.3	62.2	50.3	80
81	67.9	44.1	67.2	45.3	66.4	46.5	65.5	47.6	64.7	48.7	63.8	49.9	62.9	51.0	81
82	68.8	44.7	68.0	45.9	67.2	47.0	66.3	48.2	65.5	49.3	64.6	50.5	63.7	51.6	82
83	69.6	45.2	68.8	46.4	68.0	47.6	67.1	48.8	66.3	50.0	65.4	51.1	64.5	52.2	83
84	70.4	45.7	69.6	47.0	68.8	48.2	68.0	49.4	67.1	50.6	66.2	51.7	65.3	52.9	84
85	71.3	46.3	70.5	47.5	69.6	48.8	68.8	50.0	67.9	51.2	67.0	52.3	66.1	53.5	85
86	72.1	46.8	71.3	48.1	70.4	49.3	69.6	50.5	68.7	51.8	67.8	52.9	66.8	54.1	86
87	73.0	47.4	72.1	48.6	71.3	49.9	70.4	51.1	69.5	52.4	68.6	53.6	67.6	54.8	87
88	73.8	47.9	73.0	49.2	72.1	50.5	71.2	51.7	70.3	53.0	69.3	54.2	68.4	55.4	88
89	74.6	48.5	73.8	49.8	72.9	51.0	72.0	52.3	71.1	53.6	70.1	54.8	69.2	56.0	89
90	75.5	49.0	74.6	50.3	73.7	51.6	72.8	52.9	71.9	54.2	70.9	55.4	69.9	56.6	90
91	76.3	49.6	75.4	50.9	74.5	52.2	73.6	53.5	72.7	54.8	71.7	56.0	70.7	57.3	91
92	77.2	50.1	76.3	51.4	75.4	52.8	74.4	54.1	73.5	55.4	72.5	56.6	71.5	57.9	92
93	78.0	50.7	77.1	52.0	76.2	53.3	75.2	54.7	74.3	56.0	73.3	57.3	72.3	58.5	93
94	78.8	51.2	77.9	52.6	77.0	53.9	76.0	55.3	75.1	56.6	74.1	57.9	73.1	59.2	94
95	79.7	51.7	78.8	53.1	77.8	54.5	76.9	55.8	75.9	57.2	74.9	58.5	73.8	59.8	95
96	80.5	52.3	79.6	53.7	78.6	55.1	77.7	56.4	76.7	57.8	75.6	59.1	74.6	60.4	96
97	81.4	52.8	80.4	54.2	79.5	55.6	78.5	57.0	77.5	58.4	76.4	59.7	75.4	61.0	97
98	82.2	53.4	81.2	54.8	80.3	56.2	79.3	57.6	78.3	59.0	77.2	60.3	76.2	61.7	98
99	83.0	53.9	82.1	55.4	81.1	56.8	80.1	58.2	79.1	59.6	78.0	61.0	76.9	62.3	99
100	83.9	54.5	82.9	55.9	81.9	57.4	80.9	58.8	79.9	60.2	78.8	61.6	77.7	62.9	100
200	167.7	108.9	165.8	111.8	163.8	114.7	161.8	117.6	159.7	120.4	157.6	123.1	155.4	125.9	200
300	251.6	163.4	248.7	167.8	245.7	172.1	242.7	176.3	239.6	180.5	236.4	184.7	233.1	188.8	300
400	335.5	217.9	331.6	223.7	327.7	229.4	323.6	235.1	319.5	240.7	315.2	246.3	310.9	251.7	400
500	419.3	272.3	414.5	279.6	409.6	286.8	404.5	293.9	399.3	300.9	394.0	307.8	388.6	314.7	500
600	503.2	326.8	497.4	335.5	491.5	344.1	485.4	352.7	479.2	361.1	472.8	369.4	466.3	377.6	600
700	587.1	381.2	580.3	391.4	573.4	401.5	566.3	411.4	559.0	421.3	551.6	431.0	544.0	440.5	700
800	670.9	435.7	663.2	447.4	655.3	458.9	647.2	470.2	638.9	481.5	630.4	492.5	621.7	503.5	800
900	754.8	490.2	746.1	503.3	737.2	516.2	728.1	529.0	718.8	541.6	709.2	554.1	699.4	566.4	900

距離 Dist. / 航路 Co.	57° Dep.	57° D. Lat.	56° Dep.	56° D. Lat.	55° Dep.	55° D. Lat.	54° Dep.	54° D. Lat.	53° Dep.	53° D. Lat.	52° Dep.	52° D. Lat.	51° Dep.	51° D. Lat.	航路 Co. / 距離 Dist.

航路 Co. / 距離 Dist.	39°		40°		41°		42°		43°		44°		45°		航路 Co. / 距離 Dist.
	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
1	0.8	0.6	0.8	0.6	0.8	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1
2	1.6	1.3	1.5	1.3	1.5	1.3	1.5	1.3	1.5	1.4	1.4	1.4	1.4	1.4	2
3	2.3	1.9	2.3	1.9	2.3	2.0	2.2	2.0	2.2	2.0	2.2	2.1	2.1	2.1	3
4	3.1	2.5	3.1	2.6	3.0	2.6	3.0	2.7	2.9	2.7	2.9	2.8	2.8	2.8	4
5	3.9	3.1	3.8	3.2	3.8	3.3	3.7	3.3	3.7	3.4	3.6	3.5	3.5	3.5	5
6	4.7	3.8	4.6	3.9	4.5	3.9	4.5	4.0	4.4	4.1	4.3	4.2	4.2	4.2	6
7	5.4	4.4	5.4	4.5	5.3	4.6	5.2	4.7	5.1	4.8	5.0	4.9	4.9	4.9	7
8	6.2	5.0	6.1	5.1	6.0	5.2	5.9	5.4	5.9	5.5	5.8	5.6	5.7	5.7	8
9	7.0	5.7	6.9	5.8	6.8	5.9	6.7	6.0	6.6	6.1	6.5	6.3	6.4	6.4	9
10	7.8	6.3	7.7	6.4	7.5	6.6	7.4	6.7	7.3	6.8	7.2	6.9	7.1	7.1	10
11	8.5	6.9	8.4	7.1	8.3	7.2	8.2	7.4	8.0	7.5	7.9	7.6	7.8	7.8	11
12	9.3	7.6	9.2	7.7	9.1	7.9	8.9	8.0	8.8	8.2	8.6	8.3	8.5	8.5	12
13	10.1	8.2	10.0	8.4	9.8	8.5	9.7	8.7	9.5	8.9	9.4	9.0	9.2	9.2	13
14	10.9	8.8	10.7	9.0	10.6	9.2	10.4	9.4	10.2	9.5	10.1	9.7	9.9	9.9	14
15	11.7	9.4	11.5	9.6	11.3	9.8	11.1	10.0	11.0	10.2	10.8	10.4	10.6	10.6	15
16	12.4	10.1	12.3	10.3	12.1	10.5	11.9	10.7	11.7	10.9	11.5	11.1	11.3	11.3	16
17	13.2	10.7	13.0	10.9	12.8	11.2	12.6	11.4	12.4	11.6	12.2	11.8	12.0	12.0	17
18	14.0	11.3	13.8	11.6	13.6	11.8	13.4	12.0	13.2	12.3	12.9	12.5	12.7	12.7	18
19	14.8	12.0	14.6	12.2	14.3	12.5	14.1	12.7	13.9	13.0	13.7	13.2	13.4	13.4	19
20	15.5	12.6	15.3	12.9	15.1	13.1	14.9	13.4	14.6	13.6	14.4	13.9	14.1	14.1	20
21	16.3	13.2	16.1	13.5	15.8	13.8	15.6	14.1	15.4	14.3	15.1	14.6	14.8	14.8	21
22	17.1	13.8	16.9	14.1	16.6	14.4	16.3	14.7	16.1	15.0	15.8	15.3	15.6	15.6	22
23	17.9	14.5	17.6	14.8	17.4	15.1	17.1	15.4	16.8	15.7	16.5	16.0	16.3	16.3	23
24	18.7	15.1	18.4	15.4	18.1	15.7	17.8	16.1	17.6	16.4	17.3	16.7	17.0	17.0	24
25	19.4	15.7	19.2	16.1	18.9	16.4	18.6	16.7	18.3	17.0	18.0	17.4	17.7	17.7	25
26	20.2	16.4	19.9	16.7	19.6	17.1	19.3	17.4	19.0	17.7	18.7	18.1	18.4	18.4	26
27	21.0	17.0	20.7	17.4	20.4	17.7	20.1	18.1	19.7	18.4	19.4	18.8	19.1	19.1	27
28	21.8	17.6	21.4	18.0	21.1	18.4	20.8	18.7	20.5	19.1	20.1	19.5	19.8	19.8	28
29	22.5	18.3	22.2	18.6	21.9	19.0	21.6	19.4	21.2	19.8	20.9	20.1	20.5	20.5	29
30	23.3	18.9	23.0	19.3	22.6	19.7	22.3	20.1	21.9	20.5	21.6	20.8	21.2	21.2	30
31	24.1	19.5	23.7	19.9	23.4	20.3	23.0	20.7	22.7	21.1	22.3	21.5	21.9	21.9	31
32	24.9	20.1	24.5	20.6	24.2	21.0	23.8	21.4	23.4	21.8	23.0	22.2	22.6	22.6	32
33	25.6	20.8	25.3	21.2	24.9	21.6	24.5	22.1	24.1	22.5	23.7	22.9	23.3	23.3	33
34	26.4	21.4	26.0	21.9	25.7	22.3	25.3	22.8	24.9	23.2	24.5	23.6	24.0	24.0	34
35	27.2	22.0	26.8	22.5	26.4	23.0	26.0	23.4	25.6	23.9	25.2	24.3	24.7	24.7	35
36	28.0	22.7	27.6	23.1	27.2	23.6	26.8	24.1	26.3	24.6	25.9	25.0	25.5	25.5	36
37	28.8	23.3	28.3	23.8	27.9	24.3	27.5	24.8	27.1	25.2	26.6	25.7	26.2	26.2	37
38	29.5	23.9	29.1	24.4	28.7	24.9	28.2	25.4	27.8	25.9	27.3	26.4	26.9	26.9	38
39	30.3	24.5	29.9	25.1	29.4	25.6	29.0	26.1	28.5	26.6	28.1	27.1	27.6	27.6	39
40	31.1	25.2	30.6	25.7	30.2	26.2	29.7	26.8	29.3	27.3	28.8	27.8	28.3	28.3	40
41	31.9	25.8	31.4	26.4	30.9	26.9	30.5	27.4	30.0	28.0	29.5	28.5	29.0	29.0	41
42	32.6	26.4	32.2	27.0	31.7	27.6	31.2	28.1	30.7	28.6	30.2	29.2	29.7	29.7	42
43	33.4	27.1	32.9	27.6	32.5	28.2	32.0	28.8	31.4	29.3	30.9	29.9	30.4	30.4	43
44	34.2	27.7	33.7	28.3	33.2	28.9	32.7	29.4	32.2	30.0	31.7	30.6	31.1	31.1	44
45	35.0	28.3	34.5	28.9	34.0	29.5	33.4	30.1	32.9	30.7	32.4	31.3	31.8	31.8	45
46	35.7	28.9	35.2	29.6	34.7	30.2	34.2	30.8	33.6	31.4	33.1	32.0	32.5	32.5	46
47	36.5	29.6	36.0	30.2	35.5	30.8	34.9	31.4	34.4	32.1	33.8	32.6	33.2	33.2	47
48	37.3	30.2	36.8	30.9	36.2	31.5	35.7	32.1	35.1	32.7	34.5	33.3	33.9	33.9	48
49	38.1	30.8	37.5	31.5	37.0	32.1	36.4	32.8	35.8	33.4	35.2	34.0	34.6	34.6	49
50	38.9	31.5	38.3	32.1	37.7	32.8	37.2	33.5	36.6	34.1	36.0	34.7	35.4	35.4	50
100	77.7	62.9	76.6	64.3	75.5	65.6	74.3	66.9	73.1	68.2	71.9	69.5	70.7	70.7	100
200	155.4	125.9	153.2	128.6	150.9	131.2	148.6	133.8	146.3	136.4	143.9	138.9	141.4	141.4	200
300	233.1	188.8	229.8	192.8	226.4	196.8	222.9	200.7	219.4	204.6	215.8	208.4	212.1	212.1	300
400	310.9	251.7	306.4	257.1	301.9	262.4	297.3	267.7	292.5	272.8	287.7	277.9	282.8	282.8	400
500	388.6	314.7	383.0	321.4	377.4	328.0	371.6	334.6	365.7	341.0	359.7	347.3	353.6	353.6	500
600	466.3	377.6	459.6	385.7	452.8	393.6	445.9	401.5	438.8	409.2	431.6	416.8	424.3	424.3	600
700	544.0	440.5	536.2	450.0	528.3	459.2	520.2	468.4	511.9	477.4	503.5	486.3	495.0	495.0	700
800	621.7	503.5	612.8	514.2	603.8	524.8	594.5	535.3	585.1	545.6	575.5	555.7	565.7	565.7	800
900	699.4	566.4	689.4	578.5	679.2	590.5	668.8	602.2	658.2	613.8	647.4	625.2	636.4	636.4	900

距離 Dist. / 航路 Co.	51°		50°		49°		48°		47°		46°		45°		距離 Dist. / 航路 Co.
	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	

航路 Co. / 距離 Dist.	39°		40°		41°		42°		43°		44°		45°		航路 Co. / 距離 Dist.
	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
50	38.9	31.5	38.3	32.1	37.7	32.8	37.2	33.5	36.6	34.1	36.0	34.7	35.4	35.4	50
51	39.6	32.1	39.1	32.8	38.5	33.5	37.9	34.1	37.3	34.8	36.7	35.4	36.1	36.1	51
52	40.4	32.7	39.8	33.4	39.2	34.1	38.6	34.8	38.0	35.5	37.4	36.1	36.8	36.8	52
53	41.2	33.4	40.6	34.1	40.0	34.8	39.4	35.5	38.8	36.1	38.1	36.8	37.5	37.5	53
54	42.0	34.0	41.4	34.7	40.8	35.4	40.1	36.1	39.5	36.8	38.8	37.5	38.2	38.2	54
55	42.7	34.6	42.1	35.4	41.5	36.1	40.9	36.8	40.2	37.5	39.6	38.2	38.9	38.9	55
56	43.5	35.2	42.9	36.0	42.3	36.7	41.6	37.5	41.0	38.2	40.3	38.9	39.6	39.6	56
57	44.3	35.9	43.7	36.6	43.0	37.4	42.4	38.1	41.7	38.9	41.0	39.6	40.3	40.3	57
58	45.1	36.5	44.4	37.3	43.8	38.1	43.1	38.8	42.4	39.6	41.7	40.3	41.0	41.0	58
59	45.9	37.1	45.2	37.9	44.5	38.7	43.8	39.5	43.1	40.2	42.4	41.0	41.7	41.7	59
60	46.6	37.8	46.0	38.6	45.3	39.4	44.6	40.1	43.9	40.9	43.2	41.7	42.4	42.4	60
61	47.4	38.4	46.7	39.2	46.0	40.0	45.3	40.8	44.6	41.6	43.9	42.4	43.1	43.1	61
62	48.2	39.0	47.5	39.9	46.8	40.7	46.1	41.5	45.3	42.3	44.6	43.1	43.8	43.8	62
63	49.0	39.6	48.3	40.5	47.5	41.3	46.8	42.2	46.1	43.0	45.3	43.8	44.5	44.5	63
64	49.7	40.3	49.0	41.1	48.3	42.0	47.6	42.8	46.8	43.6	46.0	44.5	45.3	45.3	64
65	50.5	40.9	49.8	41.8	49.1	42.6	48.3	43.5	47.5	44.3	46.8	45.2	46.0	46.0	65
66	51.3	41.5	50.6	42.4	49.8	43.3	49.0	44.2	48.3	45.0	47.5	45.8	46.7	46.7	66
67	52.1	42.2	51.3	43.1	50.6	44.0	49.8	44.8	49.0	45.7	48.2	46.5	47.4	47.4	67
68	52.8	42.8	52.1	43.7	51.3	44.6	50.5	45.5	49.7	46.4	48.9	47.2	48.1	48.1	68
69	53.6	43.4	52.9	44.4	52.1	45.3	51.3	46.2	50.5	47.1	49.6	47.9	48.8	48.8	69
70	54.4	44.1	53.6	45.0	52.8	45.9	52.0	46.8	51.2	47.7	50.4	48.6	49.5	49.5	70
71	55.2	44.7	54.4	45.6	53.6	46.6	52.8	47.5	51.9	48.4	51.1	49.3	50.2	50.2	71
72	56.0	45.3	55.2	46.3	54.3	47.2	53.5	48.2	52.7	49.1	51.8	50.0	50.9	50.9	72
73	56.7	45.9	55.9	46.9	55.1	47.9	54.2	48.8	53.4	49.8	52.5	50.7	51.6	51.6	73
74	57.5	46.6	56.7	47.6	55.8	48.5	55.0	49.5	54.1	50.5	53.2	51.4	52.3	52.3	74
75	58.3	47.2	57.5	48.2	56.6	49.2	55.7	50.2	54.9	51.1	54.0	52.1	53.0	53.0	75
76	59.1	47.8	58.2	48.9	57.4	49.9	56.5	50.9	55.6	51.8	54.7	52.8	53.7	53.7	76
77	59.8	48.5	59.0	49.5	58.1	50.5	57.2	51.5	56.3	52.5	55.4	53.5	54.4	54.4	77
78	60.6	49.1	59.8	50.1	58.9	51.2	58.0	52.2	57.0	53.2	56.1	54.2	55.2	55.2	78
79	61.4	49.7	60.5	50.8	59.6	51.8	58.7	52.9	57.8	53.9	56.8	54.9	55.9	55.9	79
80	62.2	50.3	61.3	51.4	60.4	52.5	59.5	53.5	58.5	54.6	57.5	55.6	56.6	56.6	80
81	62.9	51.0	62.0	52.1	61.1	53.1	60.2	54.2	59.2	55.2	58.3	56.3	57.3	57.3	81
82	63.7	51.6	62.8	52.7	61.9	53.8	60.9	54.9	60.0	55.9	59.0	57.0	58.0	58.0	82
83	64.5	52.2	63.6	53.4	62.6	54.5	61.7	55.5	60.7	56.6	59.7	57.7	58.7	58.7	83
84	65.3	52.9	64.3	54.0	63.4	55.1	62.4	56.2	61.4	57.3	60.4	58.4	59.4	59.4	84
85	66.1	53.5	65.1	54.6	64.2	55.8	63.2	56.9	62.2	58.0	61.1	59.0	60.1	60.1	85
86	66.8	54.1	65.9	55.3	64.9	56.4	63.9	57.5	62.9	58.7	61.9	59.7	60.8	60.8	86
87	67.6	54.8	66.6	55.9	65.7	57.1	64.7	58.2	63.6	59.3	62.6	60.4	61.5	61.5	87
88	68.4	55.4	67.4	56.6	66.4	57.7	654	58.9	64.4	60.0	63.3	61.1	62.2	62.2	88
89	69.2	56.0	68.2	57.2	67.2	58.4	66.1	59.6	65.1	60.7	64.0	61.8	62.9	62.9	89
90	69.9	56.6	68.9	57.9	67.9	59.0	66.9	60.2	65.8	61.4	64.7	62.5	63.6	63.6	90
91	70.7	57.3	69.7	58.5	68.7	59.7	67.6	60.9	66.6	62.1	65.5	63.2	64.3	64.3	91
92	71.5	57.9	70.5	59.1	69.4	60.4	68.4	61.6	67.3	62.7	66.2	63.9	65.1	65.1	92
93	72.3	58.5	71.2	59.8	70.2	61.0	69.1	62.2	68.0	63.4	66.9	64.6	65.8	65.8	93
94	73.1	59.2	72.0	60.4	70.9	61.7	69.9	62.9	68.7	64.1	67.6	65.3	66.5	66.5	94
95	73.8	59.8	72.8	61.1	71.7	62.3	70.6	63.6	69.5	64.8	68.3	66.0	67.2	67.2	95
96	74.6	60.4	73.5	61.7	72.5	63.0	71.3	64.2	70.2	65.5	69.1	66.7	67.9	67.9	96
97	75.4	61.0	74.3	62.4	73.2	63.6	72.1	64.9	70.9	66.2	69.8	67.4	68.6	68.6	97
98	76.2	61.7	75.1	63.0	74.0	64.3	72.8	65.6	71.7	66.8	70.5	68.1	69.3	69.3	98
99	76.9	62.3	75.8	63.6	74.7	64.9	73.6	66.2	72.4	67.5	71.2	68.8	70.0	70.0	99
100	77.7	62.9	76.6	64.3	75.5	65.6	74.3	66.9	73.1	68.2	71.9	69.5	70.7	70.7	100
200	155.4	125.9	153.2	128.6	150.9	131.2	148.6	133.8	146.3	136.4	143.9	138.9	141.4	141.4	200
300	233.1	188.8	229.8	192.8	226.4	196.8	222.9	200.7	219.4	204.6	215.8	208.4	212.1	212.1	300
400	310.9	251.7	306.4	257.1	301.9	262.4	297.3	267.7	292.5	272.8	287.7	277.9	282.8	282.8	400
500	388.6	314.7	383.0	321.4	377.4	328.0	371.6	334.6	365.7	341.0	359.7	347.3	353.6	353.6	500
600	466.3	377.6	459.6	385.7	452.8	393.6	445.9	401.5	438.8	409.2	431.6	416.8	424.3	424.3	600
700	544.0	440.5	536.2	450.0	528.3	459.2	520.2	468.4	511.9	477.4	503.5	486.3	495.0	495.0	700
800	621.7	503.5	612.8	514.2	603.8	524.8	594.5	535.3	585.1	545.6	575.5	555.7	565.7	565.7	800
900	699.4	566.4	689.4	578.5	679.2	590.5	668.8	602.2	658.2	613.8	647.4	625.2	636.4	636.4	900

距離 Dist. / 航路 Co.	51°		50°		49°		48°		47°		46°		45°		距離 Dist. / 航路 Co.
	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	Dep.	D. Lat.	

Mid. Lat. / Dep.	0°	4°	6°	8°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°	20°
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1
2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
3	3.0	3.0	3.0	3.0	3.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.2	3.2	3.2
4	4.0	4.0	4.0	4.0	4.1	4.1	4.1	4.1	4.1	4.1	4.2	4.2	4.2	4.2	4.3
5	5.0	5.0	5.0	5.0	5.1	5.1	5.1	5.1	5.2	5.2	5.2	5.2	5.3	5.3	5.3
6	6.0	6.0	6.0	6.1	6.1	6.1	6.1	6.2	6.2	6.2	6.2	6.3	6.3	6.3	6.4
7	7.0	7.0	7.0	7.1	7.1	7.1	7.2	7.2	7.2	7.2	7.3	7.3	7.4	7.4	7.4
8	8.0	8.0	8.0	8.1	8.1	8.1	8.2	8.2	8.2	8.3	8.3	8.4	8.4	8.5	8.5
9	9.0	9.0	9.0	9.1	9.1	9.2	9.2	9.2	9.3	9.3	9.4	9.4	9.5	9.5	9.6
10	10.0	10.0	10.1	10.1	10.2	10.2	10.2	10.3	10.3	10.4	10.4	10.5	10.5	10.6	10.6
20	20.0	20.0	20.1	20.2	20.3	20.4	20.4	20.5	20.6	20.7	20.8	20.9	21.0	21.2	21.3
30	30.0	30.1	30.2	30.3	30.5	30.6	30.7	30.8	30.9	31.1	31.2	31.4	31.5	31.7	31.9
40	40.0	40.1	40.2	40.4	40.6	40.7	40.9	41.1	41.2	41.4	41.6	41.8	42.1	42.3	42.6
50	50.0	50.1	50.3	50.5	50.8	50.9	51.1	51.3	51.5	51.8	52.0	52.3	52.6	52.9	53.2
60	60.0	60.1	60.3	60.6	60.9	61.1	61.3	61.6	61.8	62.1	62.4	62.7	63.1	63.5	63.9
70	70.0	70.2	70.4	70.7	71.1	71.3	71.6	71.8	72.1	72.5	72.8	73.2	73.6	74.0	74.5
80	80.0	80.2	80.4	80.8	81.2	81.5	81.8	82.1	82.4	82.8	83.2	83.7	84.1	84.6	85.1
90	90.0	90.2	90.5	90.9	91.4	91.7	92.0	92.4	92.8	93.2	93.6	94.1	94.6	95.2	95.8
100	100.0	100.2	100.6	101.0	101.5	101.9	102.2	102.6	103.1	103.5	104.0	104.6	105.1	105.8	106.4
200	200.0	200.5	201.1	202.0	203.1	203.7	204.5	205.3	206.1	207.1	208.1	209.1	210.3	211.5	212.8
300	300.0	300.7	301.7	302.9	304.6	305.6	306.7	307.9	309.2	310.6	312.1	313.7	315.4	317.3	319.3
400	400.0	401.0	402.2	403.9	406.2	407.5	408.9	410.5	412.2	414.1	416.1	418.3	420.6	423.0	425.7
500	500.0	501.2	502.8	504.9	507.7	509.4	511.2	513.2	515.3	517.6	520.1	522.8	525.7	528.8	532.1
600	600.0	601.5	603.3	605.9	609.3	611.2	613.4	615.8	618.4	621.2	624.2	627.4	630.9	634.6	638.5
700	700.0	701.7	703.9	706.9	710.8	713.1	715.6	718.4	721.4	724.7	728.2	732.0	736.0	740.3	744.9
800	800.0	802.0	804.4	807.9	812.3	815.0	817.9	821.0	824.5	828.2	832.2	836.6	841.2	846.1	851.3
900	900.0	902.2	905.0	908.8	913.9	916.8	920.1	923.7	927.6	931.7	936.3	941.1	946.3	951.9	957.8

Mid. Lat. / Dep.	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°	31°	32°	33°	34°	35°
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2
2	2.1	2.2	2.2	2.2	2.2	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.4	2.4	2.4
3	3.2	3.2	3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.5	3.5	3.5	3.6	3.6	3.7
4	4.3	4.3	4.3	4.4	4.4	4.5	4.5	4.5	4.6	4.6	4.7	4.7	4.8	4.8	4.9
5	5.4	5.4	5.4	5.5	5.5	5.6	5.6	5.7	5.7	5.8	5.8	5.9	6.0	6.0	6.1
6	6.4	6.5	6.5	6.6	6.6	6.7	6.7	6.8	6.9	6.9	7.0	7.1	7.2	7.2	7.3
7	7.5	7.5	7.6	7.7	7.7	7.8	7.9	7.9	8.0	8.1	8.2	8.3	8.3	8.4	8.5
8	8.6	8.6	8.7	8.8	8.8	8.9	9.0	9.1	9.1	9.2	9.3	9.4	9.5	9.6	9.8
9	9.6	9.7	9.8	9.9	9.9	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.9	11.0
10	10.7	10.8	10.9	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.7	11.8	11.9	12.1	12.2
20	21.4	21.6	21.7	21.9	22.1	22.3	22.4	22.7	22.9	23.1	23.3	23.6	23.8	24.1	24.4
30	32.1	32.4	32.6	32.8	33.1	33.4	33.7	34.0	34.3	34.6	35.0	35.4	35.8	36.2	36.6
40	42.8	43.1	43.5	43.8	44.1	44.5	44.9	45.3	45.7	46.2	46.7	47.2	47.7	48.2	48.8
50	53.6	53.9	54.3	54.7	55.2	55.6	56.1	56.6	57.2	57.7	58.3	59.0	59.6	60.3	61.0
60	64.3	64.7	65.2	65.7	66.2	66.8	67.3	68.0	68.6	69.3	70.0	70.8	71.5	72.4	73.2
70	75.0	75.5	76.0	76.6	77.2	77.9	78.6	79.3	80.0	80.8	81.7	82.5	83.5	84.4	85.5
80	85.7	86.3	86.9	87.6	88.3	89.0	89.8	90.6	91.5	92.4	93.3	94.3	95.4	96.5	97.7
90	96.4	97.1	97.8	98.5	99.3	100.1	101.0	101.9	102.9	103.9	105.0	106.1	107.3	108.6	109.9
100	107.1	107.9	108.6	109.5	110.3	111.3	112.2	113.3	114.3	115.5	116.7	117.9	119.2	120.6	122.1
200	214.2	215.7	217.3	218.9	220.7	222.5	224.5	226.5	228.7	230.9	233.3	235.8	238.5	241.2	244.2
300	321.3	323.6	325.9	328.4	331.0	333.8	336.7	339.8	343.0	346.4	350.0	353.8	357.7	361.9	366.2
400	428.5	431.4	434.5	437.9	441.4	445.0	448.9	453.0	457.3	461.9	466.7	471.7	476.9	482.5	488.3
500	535.6	539.3	543.2	547.3	551.7	556.3	561.2	566.3	571.7	577.4	583.3	589.6	596.2	603.1	610.4
600	642.7	647.1	651.8	656.8	662.0	667.6	673.4	679.5	686.0	692.8	700.0	707.5	715.4	723.7	732.5
700	749.8	755.0	760.5	766.2	772.4	778.8	785.6	792.8	800.3	808.3	816.6	825.4	834.7	844.4	854.5
800	856.9	862.8	869.1	875.7	882.7	890.1	897.9	906.1	914.7	923.8	933.3	943.3	953.9	965.0	976.6
900	964.0	970.7	977.7	985.2	993.0	1001.3	1010.1	1019.3	1029.0	1039.2	1050.0	1061.3	1073.1	1085.6	1098.7

Mid. Lat. / Dep.	36°	37°	38°	39°	40°	41°	42°	43°	44°	45°	46°	47°	48°	49°	50°
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.6
2	2.5	2.5	2.5	2.6	2.6	2.7	2.7	2.7	2.8	2.8	2.9	2.9	3.0	3.0	3.1
3	3.7	3.8	3.8	3.9	3.9	4.0	4.0	4.1	4.2	4.2	4.3	4.4	4.5	4.6	4.7
4	4.9	5.0	5.1	5.1	5.2	5.3	5.4	5.5	5.6	5.7	5.8	5.9	6.0	6.1	6.2
5	6.2	6.3	6.3	6.4	6.5	6.6	6.7	6.8	7.0	7.1	7.2	7.3	7.5	7.6	7.8
6	7.4	7.5	7.6	7.7	7.8	8.0	8.1	8.2	8.3	8.5	8.6	8.8	9.0	9.1	9.3
7	8.7	8.8	8.9	9.0	9.1	9.3	9.4	9.6	9.7	9.9	10.1	10.3	10.5	10.7	10.9
8	9.9	10.0	10.2	10.3	10.4	10.6	10.8	10.9	11.1	11.3	11.5	11.7	12.0	12.2	12.4
9	11.1	11.3	11.4	11.6	11.7	11.9	12.1	12.3	12.5	12.7	13.0	13.2	13.5	13.7	14.0
10	12.4	12.5	12.7	12.9	13.1	13.3	13.5	13.7	13.9	14.1	14.4	14.7	14.9	15.2	15.6
20	24.7	25.0	25.4	25.7	26.1	26.5	26.9	27.3	27.8	28.3	28.8	29.3	29.9	30.5	31.1
30	37.1	37.6	38.1	38.6	39.2	39.8	40.4	41.0	41.7	42.4	43.2	44.0	44.8	45.7	46.7
40	49.4	50.1	50.8	51.5	52.2	53.0	53.8	54.7	55.6	56.6	57.6	58.7	59.8	61.0	62.2
50	61.8	62.6	63.5	64.3	65.3	66.3	67.3	68.4	69.5	70.7	72.0	73.3	74.7	76.2	77.8
60	74.2	75.1	76.1	77.2	78.3	79.5	80.7	82.0	83.4	84.9	86.4	88.0	89.7	91.5	93.3
70	86.5	87.6	88.8	90.1	91.4	92.8	94.2	95.7	97.3	99.0	100.8	102.6	104.6	106.7	108.9
80	98.9	100.2	101.5	102.9	104.4	106.0	107.7	109.4	111.2	113.1	115.2	117.3	119.6	121.9	124.5
90	111.2	112.7	114.2	115.8	117.5	119.3	121.1	123.1	125.1	127.3	129.6	132.0	134.5	137.2	140.0
100	123.6	125.2	126.9	128.7	130.5	132.5	134.6	136.7	139.0	141.4	144.0	146.6	149.4	152.4	155.6
200	247.2	250.4	253.8	257.4	261.1	265.0	269.1	273.5	278.0	282.8	287.9	293.3	298.9	304.9	311.1
300	370.8	375.6	380.7	386.0	391.6	397.5	403.7	410.2	417.0	424.3	431.9	439.9	448.3	457.3	466.7
400	494.4	500.9	507.6	514.7	522.2	530.0	538.3	546.9	556.1	565.7	575.8	586.5	597.8	609.7	622.3
500	618.0	626.1	634.5	643.4	652.7	662.5	672.8	683.7	695.1	707.1	719.8	733.1	747.2	762.1	777.9
600	741.6	751.3	761.4	772.1	783.2	795.0	807.4	820.4	834.1	848.5	863.7	879.8	896.7	914.6	933.4
700	865.2	876.5	888.3	900.7	913.8	927.5	941.9	957.1	973.1	989.9	1007.7	1026.4	1046.1	1067.0	1089.0
800	988.9	1001.7	1015.2	1029.4	1044.3	1060.0	1076.5	1093.9	1112.1	1131.4	1151.6	1173.0	1195.6	1219.4	1244.6
900	1112.5	1126.9	1142.1	1158.1	1174.9	1192.5	1211.1	1230.6	1251.1	1272.8	1295.6	1319.7	1345.0	1371.8	1400.2

Mid. Lat. / Dep.	51°	52°	53°	54°	55°	56°	57°	58°	59°	60°	61°	62°	63°	64°	65°
′	′	′	′	′	′	′	′	′	′	′	′	′	′	′	′
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1	1.6	1.6	1.7	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.1	2.1	2.2	2.3	2.4
2	3.2	3.2	3.3	3.4	3.5	3.6	3.7	3.8	3.9	4.0	4.1	4.3	4.4	4.6	4.7
3	4.8	4.9	5.0	5.1	5.2	5.4	5.5	5.7	5.8	6.0	6.2	6.4	6.6	6.8	7.1
4	6.4	6.5	6.6	6.8	7.0	7.2	7.3	7.5	7.8	8.0	8.3	8.5	8.8	9.1	9.5
5	7.9	8.1	8.3	8.5	8.7	8.9	9.2	9.4	9.7	10.0	10.3	10.7	11.0	11.4	11.8
6	9.5	9.7	10.0	10.2	10.5	10.7	11.0	11.3	11.6	12.0	12.4	12.8	13.2	13.7	14.2
7	11.1	11.4	11.6	11.9	12.2	12.5	12.9	13.2	13.6	14.0	14.4	14.9	15.4	16.0	16.6
8	12.7	13.0	13.3	13.6	13.9	14.3	14.7	15.1	15.5	16.0	16.5	17.0	17.6	18.2	18.9
9	14.3	14.6	15.0	15.3	15.7	16.1	16.5	17.0	17.5	18.0	18.6	19.2	19.8	20.5	21.3
10	15.9	16.2	16.6	17.0	17.4	17.9	18.4	18.9	19.4	20.0	20.6	21.3	22.0	22.8	23.7
20	31.8	32.5	33.2	34.0	34.9	35.8	36.7	37.7	38.8	40.0	41.3	42.6	44.1	45.6	47.3
30	47.7	48.7	49.8	51.0	52.3	53.6	55.1	56.6	58.2	60.0	61.9	63.9	66.1	68.4	71.0
40	63.6	65.0	66.5	68.1	69.7	71.5	73.4	75.5	77.7	80.0	82.5	85.2	88.1	91.2	94.6
50	79.5	81.2	83.1	85.1	87.2	89.4	91.8	94.4	97.1	100.0	103.1	106.5	110.1	114.1	118.3
60	95.3	97.5	99.7	102.1	104.6	107.3	110.2	113.2	116.5	120.0	123.8	127.8	132.2	136.9	142.0
70	111.2	113.7	116.3	119.1	122.0	125.2	128.5	132.1	135.9	140.0	144.4	149.1	154.2	159.7	165.6
80	127.1	129.9	132.9	136.1	139.5	143.1	146.9	151.0	155.3	160.0	165.0	170.4	176.2	182.5	189.3
90	143.0	146.2	149.5	153.1	156.9	160.9	165.2	169.8	174.7	180.0	185.6	191.7	198.2	205.3	213.0
100	158.9	162.4	166.2	170.1	174.3	178.8	183.6	188.7	194.2	200.0	206.3	213.0	220.3	228.1	236.6
200	317.8	324.9	332.3	340.3	348.7	357.7	367.2	377.4	388.3	400.0	412.5	426.0	440.5	456.2	473.2
300	476.7	487.3	498.5	510.4	523.0	536.5	550.8	566.1	582.5	600.0	618.8	639.0	660.8	684.4	709.9
400	635.6	649.7	664.7	680.5	697.4	715.3	734.4	754.8	776.6	800.0	825.1	852.0	881.1	912.5	946.5
500	794.5	812.1	830.8	850.7	871.7	894.1	918.0	943.5	970.8	1000.0	1031.3	1065.0	1101.3	1140.6	1183.1
600	953.4	974.6	997.0	1020.8	1046.1	1073.0	1101.6	1132.2	1165.0	1200.0	1237.6	1278.0	1321.6	1368.7	1419.7
700	1112.3	1137.0	1163.1	1190.9	1220.4	1251.8	1285.3	1321.0	1359.1	1400.0	1443.9	1491.0	1541.9	1596.8	1656.3
800	1271.2	1299.4	1329.3	1361.0	1394.8	1430.6	1468.9	1509.7	1553.3	1600.0	1650.1	1704.0	1762.2	1824.9	1893.0
900	1430.1	1461.8	1495.5	1531.2	1569.1	1609.5	1652.5	1698.4	1747.4	1800.0	1856.4	1917.0	1982.4	2053.1	2129.6

緯度 Lat.	漸長緯度 m. p. 0′	10′	20′	30′	40′	50′	比例部分 P. P. 1′	2′	3′	4′	5′	6′	7′	8′	9′	緯度 Lat.
°																°
0	0.0	9.9	19.9	29.8	39.7	49.7	1.0	2.0	3.0	4.0	5.0	5.9	6.9	7.9	8.9	0
1	59.6	69.5	79.5	89.4	99.3	109.3	1.0	2.0	3.0	4.0	5.0	5.9	6.9	7.9	8.9	1
2	119.2	129.2	139.1	149.0	159.0	168.9	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	2
3	178.9	188.8	198.8	208.7	218.7	228.6	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	3
4	238.6	248.6	258.5	268.5	278.4	288.4	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	4
5	298.4	308.4	318.3	328.3	338.3	348.3	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	5
6	358.3	368.3	378.2	388.2	398.2	408.2	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	6
7	418.3	428.3	438.3	448.3	458.3	468.3	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	7
8	478.4	488.4	498.4	508.5	518.5	528.6	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0	8
9	538.6	548.7	558.8	568.8	578.9	589.0	1.0	2.0	3.0	4.0	5.1	6.1	7.1	8.1	9.1	9
10	599.1	609.2	619.3	629.4	639.5	649.6	1.0	2.0	3.0	4.0	5.1	6.1	7.1	8.1	9.1	10
11	659.7	669.8	680.0	690.1	700.2	710.4	1.0	2.0	3.1	4.1	5.1	6.1	7.1	8.2	9.2	11
12	720.6	730.7	740.9	751.1	761.2	771.4	1.0	2.0	3.1	4.1	5.1	6.1	7.1	8.2	9.2	12
13	781.6	791.8	802.0	812.2	822.5	832.7	1.0	2.0	3.1	4.1	5.1	6.1	7.1	8.2	9.2	13
14	842.9	853.2	863.4	873.7	884.0	894.2	1.0	2.1	3.1	4.1	5.2	6.2	7.2	8.2	9.3	14
15	904.5	914.8	925.1	935.4	945.7	956.1	1.0	2.1	3.1	4.1	5.2	6.2	7.2	8.2	9.3	15
16	966.4	976.7	987.1	997.5	1007.8	1018.2	1.0	2.1	3.1	4.2	5.2	6.2	7.3	8.3	9.4	16
17	1028.6	1039.0	1049.4	1059.8	1070.2	1080.7	1.0	2.1	3.1	4.2	5.2	6.2	7.3	8.3	9.4	17
18	1091.1	1101.6	1112.0	1122.5	1133.0	1143.5	1.1	2.1	3.2	4.2	5.3	6.3	7.4	8.4	9.5	18
19	1154.0	1164.5	1175.1	1185.6	1196.2	1206.7	1.1	2.1	3.2	4.2	5.3	6.4	7.4	8.5	9.5	19
20	1217.3	1227.9	1238.5	1249.1	1259.7	1270.3	1.1	2.1	3.2	4.2	5.3	6.4	7.4	8.5	9.5	20
21	1281.0	1291.6	1302.3	1313.0	1323.7	1334.4	1.1	2.1	3.2	4.3	5.4	6.4	7.5	8.6	9.6	21
22	1345.1	1355.8	1366.6	1377.3	1388.1	1398.9	1.1	2.2	3.2	4.3	5.4	6.5	7.6	8.6	9.7	22
23	1409.7	1420.5	1431.3	1442.1	1453.0	1463.8	1.1	2.2	3.2	4.3	5.4	6.5	7.6	8.6	9.7	23
24	1474.7	1485.6	1496.5	1507.4	1518.4	1529.3	1.1	2.2	3.3	4.4	5.5	6.5	7.6	8.7	9.8	24
25	1540.3	1551.3	1562.3	1573.3	1584.3	1595.4	1.1	2.2	3.3	4.4	5.5	6.6	7.7	8.8	9.9	25
26	1606.4	1617.5	1628.6	1639.7	1650.8	1661.9	1.1	2.2	3.3	4.4	5.6	6.7	7.8	8.9	10.0	26
27	1673.1	1684.3	1695.5	1706.7	1717.9	1729.1	1.1	2.2	3.4	4.5	5.6	6.7	7.8	9.0	10.1	27
28	1740.4	1751.7	1763.0	1774.3	1785.6	1796.9	1.1	2.3	3.4	4.5	5.7	6.8	7.9	9.0	10.2	28
29	1808.3	1819.7	1831.1	1842.5	1854.0	1865.4	1.1	2.3	3.4	4.6	5.7	6.8	8.0	9.1	10.3	29
30	1876.9	1888.4	1899.9	1911.5	1923.0	1934.6	1.2	2.3	3.5	4.6	5.8	7.0	8.1	9.3	10.4	30
31	1946.2	1957.8	1969.4	1981.1	1992.8	2004.5	1.2	2.3	3.5	4.7	5.9	7.0	8.2	9.4	10.5	31
32	2016.2	2028.0	2039.7	2051.5	2063.3	2075.2	1.2	2.4	3.5	4.7	5.9	7.1	8.3	9.4	10.6	32
33	2087.0	2098.9	2110.8	2122.7	2134.7	2146.6	1.2	2.4	3.6	4.8	6.0	7.1	8.3	9.5	10.7	33
34	2158.6	2170.7	2182.7	2194.8	2206.9	2219.0	1.2	2.4	3.6	4.8	6.1	7.3	8.5	9.7	10.9	34
35	2231.1	2243.3	2255.5	2267.7	2279.9	2292.2	1.2	2.4	3.7	4.9	6.1	7.3	8.5	9.8	11.0	35
36	2304.5	2316.8	2329.2	2341.5	2353.9	2366.4	1.2	2.5	3.7	5.0	6.2	7.4	8.7	9.9	11.2	36
37	2378.8	2391.3	2403.8	2416.3	2428.9	2441.5	1.3	2.5	3.8	5.0	6.3	7.6	8.8	10.1	11.3	37
38	2454.1	2466.8	2479.5	2492.2	2504.9	2517.7	1.3	2.5	3.8	5.1	6.4	7.6	8.9	10.2	11.4	38
39	2530.5	2543.3	2556.2	2569.1	2582.0	2594.9	1.3	2.6	3.9	5.2	6.5	7.7	9.0	10.3	11.6	39
40	2607.9	2620.9	2634.0	2647.1	2660.2	2673.3	1.3	2.6	3.9	5.2	6.6	7.9	9.2	10.5	11.8	40
41	2686.5	2699.7	2713.0	2726.3	2739.6	2753.0	1.3	2.7	4.0	5.3	6.7	8.0	9.3	10.6	12.0	41
42	2766.3	2779.8	2793.2	2806.7	2820.3	2833.8	1.4	2.7	4.1	5.4	6.8	8.1	9.5	10.8	12.2	42
43	2847.4	2861.1	2874.8	2888.5	2902.2	2916.0	1.4	2.8	4.1	5.5	6.9	8.3	9.7	11.0	12.4	43
44	2929.9	2943.7	2957.6	2971.6	2985.6	2999.6	1.4	2.8	4.2	5.6	7.0	8.4	9.8	11.2	12.6	44
緯度 Lat.	0′	10′	20′	30′	40′	50′	1′	2′	3′	4′	5′	6′	7′	8′	9′	緯度 Lat.

(Bessel 扁球ニ據ル値)

緯度 Lat.	漸長緯度 m. p. 0′	10′	20′	30′	40′	50′	比例部分 P. P. 1′	2′	3′	4′	5′	6′	7′	8′	9′	緯度 Lat.
°																°
45	3013.7	3027.8	3042.0	3056.2	3070.4	3084.7	1.4	2.8	4.3	5.7	7.1	8.5	9.9	11.4	12.8	45
46	3099.0	3113.4	3127.8	3142.3	3156.8	3171.3	1.5	2.9	4.4	5.8	7.3	8.7	10.2	11.6	13.1	46
47	3185.9	3200.6	3215.2	3230.0	3244.8	3259.6	1.5	3.0	4.4	5.9	7.4	8.9	10.4	11.8	13.3	47
48	3274.5	3289.4	3304.4	3319.4	3334.4	3349.6	1.5	3.0	4.5	6.0	7.5	9.0	10.5	12.0	13.5	48
49	3364.7	3380.0	3395.2	3410.6	3426.0	3441.4	1.5	3.1	4.6	6.2	7.7	9.2	10.8	12.3	13.9	49
50	3456.9	3472.4	3488.0	3503.7	3519.4	3535.1	1.6	3.1	4.7	6.3	7.9	9.4	11.0	12.6	14.1	50
51	3551.0	3566.8	3582.8	3598.8	3614.8	3630.9	1.6	3.2	4.8	6.4	8.0	9.6	11.2	12.8	14.4	51
52	3647.1	3663.3	3679.6	3696.0	3712.4	3728.9	1.6	3.3	4.9	6.6	8.2	9.8	11.5	13.1	14.8	52
53	3745.4	3762.0	3778.7	3795.4	3812.2	3829.1	1.7	3.4	5.0	6.7	8.4	10.1	11.8	13.4	15.1	53
54	3846.0	3863.1	3880.1	3897.3	3914.5	3931.8	1.7	3.4	5.2	6.9	8.6	10.3	12.0	13.8	15.5	54
55	3949.1	3966.6	3984.1	4001.7	4019.3	4037.0	1.8	3.5	5.3	7.0	8.8	10.6	12.3	14.1	15.8	55
56	4054.9	4072.7	4090.7	4108.7	4126.9	4145.1	1.8	3.6	5.4	7.2	9.1	10.9	12.7	14.5	16.3	56
57	4163.3	4181.7	4200.2	4218.7	4237.3	4256.0	1.9	3.7	5.6	7.4	9.3	11.2	13.0	14.9	16.7	57
58	4274.8	4293.7	4312.7	4331.7	4350.9	4370.1	1.9	3.8	5.7	7.6	9.6	11.5	13.4	15.3	17.2	58
59	4389.4	4408.9	4428.4	4448.0	4467.7	4487.5	2.0	3.9	5.9	7.9	9.9	11.8	13.8	15.8	17.7	59
60	4507.5	4527.5	4547.6	4567.8	4588.1	4608.6	2.0	4.1	6.1	8.1	10.2					60
61	4629.1	4649.8	4670.5	4691.4	4712.4	4733.5	2.1	4.2	6.3	8.4	10.5					61
62	4754.7	4776.0	4797.5	4819.0	4840.7	4862.5	2.2	4.3	6.5	8.6	10.8					62
63	4884.5	4906.5	4928.7	4951.0	4973.5	4996.0	2.2	4.5	6.7	9.0	11.2					63
64	5018.8	5041.6	5064.6	5087.7	5111.0	5134.4	2.3	4.6	7.0	9.3	11.6					64
65	5158.0	5181.7	5205.5	5229.6	5253.7	5278.0	2.4	4.8	7.2	9.6	12.1					65
66	5302.5	5327.2	5352.0	5376.9	5402.1	5427.4	2.5	5.0	7.5	10.0	12.6					66
67	5452.8	5478.5	5504.3	5530.3	5556.5	5582.9	2.6	5.2	7.8	10.4	13.1					67
68	5609.5	5636.3	5663.2	5690.4	5717.8	5745.3	2.7	5.5	8.2	10.9	13.7					68
69	5773.1	5801.1	5829.3	5857.7	5886.3	5915.2	2.9	5.7	8.6	11.4	14.3					69
70	5944.3	5973.6	6003.2	6033.0	6063.1	6093.4	3	6	9	12	15					70
71	6124.0	6154.8	6185.9	6217.2	6248.9	6280.8	3	6	9	13	16					71
72	6313.0	6345.5	6378.2	6411.3	6444.7	6478.4	3	7	10	13	17					72
73	6512.4	6546.8	6581.5	6616.5	6651.8	6687.6	4	7	11	14	18					73
74	6723.6	6760.1	6796.9	6834.1	6871.7	6909.7	4	7	11	15	19					74
75	6948.1	6987.0	7026.2	7065.9	7106.1	7146.7	4	8	12	16	20					75
76	7187.8	7229.3	7271.4	7313.9	7357.0	7400.6	4	9	13	17	21					76
77	7444.8	7489.5	7534.8	7580.7	7627.2	7674.3	5	9	14	18	23					77
78	7722.1	7770.5	7819.6	7869.4	7919.9	7971.1	5	10	15	20	25					78
79	8023.1	8075.9	8129.5	8184.0	8239.3	8295.4	5	11	16	22	27					79
80	8352.6	8410.6	8469.6	8529.7	8590.8	8653.0	6	12	18	24	30					80
81	8716.4	8780.9	8846.6	8913.6	8981.9	9051.6	7	14	20	27	34					81
82	9122.7	9195.3	9269.4	9345.2	9422.7	9501.9	8	15	23	31	38					82
83	9583.0	9666.0	9751.1	9838.3	9927.8	10019.7	9	18	27	35	44					83
84	10114.0	10211.0	10310.8	10413.6	10519.6	10628.8	10	21	31	42	52					84
85	10741.7	10858.4	10979.2	11104.3	11234.2	11369.1										85
86	11509.6	11656.0	11808.9	11968.9	12136.8	12313.2										86
87	12499.1	12695.7	12904.2	13126.1	13363.4	13618.2										87
88	13893.4	14192.6	14520.3	14882.6	15287.5	15746.6										88
89	16276.6	16903.4	17670.5	18659.5	20053.4	22436.3										89
緯度 Lat.	0′	10′	20′	30′	40′	50′	1′	2′	3′	4′	5′	6′	7′	8′	9′	緯度 Lat.

(Bessel 扁球ニ據ル値)

第 15 表　無線電信ニ依リテ測定セシ大圏方位ヨリ漸長方位ヲ求ムル爲ノ改正表

中分緯度 Mid. Lat.	無線局ト艦船トノ間ノ變經 (D.Long.)															
	0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°
°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.6	0.7
10	0.0	0.1	0.2	0.3	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.0	1.1	1.2	1.3
15	0.0	0.1	0.3	0.4	0.5	0.6	0.8	0.9	1.0	1.2	1.3	1.4	1.6	1.7	1.8	1.9
20	0.0	0.2	0.3	0.5	0.7	0.9	1.0	1.2	1.4	1.5	1.7	1.9	2.1	2.2	2.4	2.6
22	0.0	0.2	0.4	0.6	0.7	0.9	1.1	1.3	1.5	1.7	1.9	2.1	2.2	2.4	2.6	2.8
24	0.0	0.2	0.4	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.0	2.2	2.4	2.6	2.8	3.1
26	0.0	0.2	0.4	0.7	0.9	1.1	1.3	1.5	1.8	2.0	2.2	2.4	2.6	2.8	3.1	3.3
28	0.0	0.2	0.5	0.7	0.9	1.2	1.4	1.6	1.9	2.1	2.3	2.6	2.8	3.1	3.3	3.5
30	0.0	0.3	0.5	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	2.8	3.0	3.3	3.5	3.8
32	0.0	0.3	0.5	0.8	1.1	1.3	1.6	1.9	2.1	2.4	2.6	2.9	3.2	3.4	3.7	4.0
34	0.0	0.3	0.6	0.8	1.1	1.4	1.7	2.0	2.2	2.5	2.8	3.1	3.4	3.6	3.9	4.2
36	0.0	0.3	0.6	0.9	1.2	1.5	1.8	2.1	2.4	2.6	2.9	3.2	3.5	3.8	4.1	4.4
38	0.0	0.3	0.6	0.9	1.2	1.5	1.8	2.2	2.5	2.8	3.1	3.4	3.7	4.0	4.3	4.6
40	0.0	0.3	0.6	1.0	1.3	1.6	1.9	2.2	2.6	2.9	3.2	3.5	3.9	4.2	4.5	4.8
42	0.0	0.3	0.7	1.0	1.3	1.7	2.0	2.3	2.7	3.0	3.3	3.7	4.0	4.3	4.7	5.0
44	0.0	0.3	0.7	1.0	1.4	1.7	2.1	2.4	2.8	3.1	3.5	3.8	4.2	4.5	4.9	5.2
46	0.0	0.4	0.7	1.1	1.4	1.8	2.2	2.5	2.9	3.2	3.6	4.0	4.3	4.7	5.0	5.4
48	0.0	0.4	0.7	1.1	1.5	1.9	2.2	2.6	3.0	3.3	3.7	4.1	4.5	4.8	5.2	5.6
50	0.0	0.4	0.8	1.1	1.5	1.9	2.3	2.7	3.1	3.4	3.8	4.2	4.6	5.0	5.4	5.7
52	0.0	0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.5	3.9	4.3	4.7	5.1	5.5	5.9
54	0.0	0.4	0.8	1.2	1.6	2.0	2.4	2.8	3.2	3.6	4.0	4.4	4.9	5.3	5.7	6.1
56	0.0	0.4	0.8	1.2	1.7	2.1	2.5	2.9	3.3	3.7	4.1	4.6	5.0	5.4	5.8	6.2
58	0.0	0.4	0.8	1.3	1.7	2.1	2.5	3.0	3.4	3.8	4.2	4.7	5.1	5.5	5.9	6.4
60	0.0	0.4	0.9	1.3	1.7	2.2	2.6	3.0	3.5	3.9	4.3	4.8	5.2	5.6	6.1	6.5
62	0.0	0.4	0.9	1.3	1.8	2.2	2.6	3.1	3.5	4.0	4.4	4.9	5.3	5.7	6.2	6.6
64	0.0	0.4	0.9	1.3	1.8	2.2	2.7	3.1	3.6	4.0	4.5	4.9	5.4	5.8	6.3	6.7

中分緯度 Mid. Lat.	無線局ト艦船トノ間ノ變經 (D.Long.)															
	15°	16°	17°	18°	19°	20°	21°	22°	23°	24°	25°	26°	27°	28°	29°	30°
°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.7	0.7	0.7	0.8	0.8	0.9	0.9	1.0	1.0	1.0	1.1	1.1	1.2	1.2	1.3	1.3
10	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.3	2.4	2.5	2.6
15	1.9	2.1	2.2	2.3	2.5	2.6	2.7	2.8	3.0	3.1	3.2	3.4	3.5	3.6	3.8	3.9
20	2.6	2.7	2.9	3.1	3.2	3.4	3.6	3.8	3.9	4.1	4.3	4.4	4.6	4.8	5.0	5.1
22	2.8	3.0	3.2	3.4	3.6	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.2	5.4	5.6
24	3.1	3.3	3.5	3.7	3.9	4.1	4.3	4.5	4.7	4.9	5.1	5.3	5.5	5.7	5.9	6.1
26	3.3	3.5	3.7	3.9	4.2	4.4	4.6	4.8	5.0	5.3	5.5	5.7	5.9	6.1	6.4	6.6
28	3.5	3.8	4.0	4.2	4.5	4.7	4.9	5.2	5.4	5.6	5.9	6.1	6.3	6.6	6.8	7.0
30	3.8	4.0	4.3	4.5	4.8	5.0	5.3	5.5	5.8	6.0	6.3	6.5	6.8	7.0	7.3	7.5
32	4.0	4.2	4.5	4.8	5.0	5.3	5.6	5.8	6.1	6.4	6.6	6.9	7.2	7.4	7.7	7.9
34	4.2	4.5	4.8	5.0	5.3	5.6	5.9	6.2	6.4	6.7	7.0	7.3	7.5	7.8	8.1	8.4
36	4.4	4.7	5.0	5.3	5.6	5.9	6.2	6.5	6.8	7.1	7.3	7.6	7.9	8.2	8.5	8.8
38	4.6	4.9	5.2	5.5	5.8	6.2	6.5	6.8	7.1	7.4	7.7	8.0	8.3	8.6	8.9	9.2
40	4.8	5.1	5.5	5.8	6.1	6.4	6.7	7.1	7.4	7.7	8.0	8.4	8.7	9.0	9.3	9.6
42	5.0	5.4	5.7	6.0	6.4	6.7	7.0	7.4	7.7	8.0	8.4	8.7	9.0	9.4	9.7	10.0
44	5.2	5.6	5.9	6.3	6.6	6.9	7.3	7.6	8.0	8.3	8.7	9.0	9.4	9.7	10.1	10.4
46	5.4	5.8	6.1	6.5	6.8	7.2	7.6	7.9	8.3	8.6	9.0	9.4	9.7	10.1	10.4	10.8
48	5.6	5.9	6.3	6.7	7.1	7.4	7.8	8.2	8.5	8.9	9.3	9.7	10.0	10.4	10.8	11.1
50	5.7	6.1	6.5	6.9	7.3	7.7	8.0	8.4	8.8	9.2	9.6	10.0	10.3	10.7	11.1	11.5
52	5.9	6.3	6.7	7.1	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.2	10.6	11.0	11.4	11.8
54	6.1	6.5	6.9	7.3	7.7	8.1	8.5	8.9	9.3	9.7	10.1	10.5	10.9	11.3	11.7	12.1
56	6.2	6.6	7.0	7.5	7.9	8.3	8.7	9.1	9.5	9.9	10.4	10.8	11.2	11.6	12.0	12.4
58	6.4	6.8	7.2	7.6	8.1	8.5	8.9	9.3	9.8	10.2	10.6	11.0	11.4	11.9	12.3	12.7
60	6.5	6.9	7.4	7.8	8.2	8.7	9.1	9.5	10.0	10.4	10.8	11.3	11.7	12.1	12.6	13.0
62	6.6	7.1	7.5	7.9	8.4	8.8	9.3	9.7	10.2	10.6	11.0	11.5	11.9	12.4	12.8	13.2
64	6.7	7.2	7.6	8.1	8.5	9.0	9.4	9.9	10.3	10.8	11.2	11.7	12.1	12.6	13.0	13.5

方位ハ總テ眞北ヲ 0° トシ東廻リニ 360° ニ至ル。

1. 無線羅針局ヨリノ漸長方位＝無線羅針局ニテ測定セシ眞方位（大圏方位）±本表改正數

改正數ノ符號 { 北緯ノ場合：艦船ガ無線局ノ東ニ在ル場合(+)，艦船ガ無線局ノ西ニ在ル場合(−)
　　南緯ノ場合：〃　西　〃　(+)，〃　東　〃　(−)

2. 無線標識局ヨリノ漸長方位＝〔艦船ニテ測定セシ眞方位（大圏方位）±本表改正數〕±180°

改正數ノ符號ハ 1. ノ場合ト相反ス。

第 16 表　羅針方位點度對照表

North	° 0	′ 0	North	pt. 0	South	° 0	′ 0	South
N. ¼ E.	2	48¾	N. ¼ W.	¼	S. ¼ E.	2	48¾	S. ¼ W.
N. ½ E.	5	37½	N. ½ W.	½	S. ½ E.	5	37½	S. ½ W.
N. ¾ E.	8	26¼	N. ¾ W.	¾	S. ¾ E.	8	26¼	S. ¾ W.
N. by E.	**11**	**15**	**N. by W.**	**1**	**S. by E.**	**11**	**15**	**S. by W.**
N. by E. ¼ E.	14	3¾	N. by W. ¼ W.	1¼	S. by E. ¼ E.	14	3¾	S. by W. ¼ W.
N. by E. ½ E.	16	52½	N. by W. ½ W.	1½	S. by E. ½ E.	16	52½	S. by W. ½ W.
N. by E. ¾ E.	19	41¼	N. by W. ¾ W.	1¾	S. by E. ¾ E.	19	41¼	S. by W. ¾ W.
N. N. E.	**22**	**30**	**N. N. W.**	**2**	**S. S. E.**	**22**	**30**	**S. S. W.**
N. N. E. ¼ E.	25	18¾	N. N. W. ¼ W.	2¼	S. S. E. ¼ E.	25	18¾	S. S. W. ¼ W.
N. N. E. ½ E.	28	7½	N. N. W. ½ W.	2½	S. S. E. ½ E.	28	7½	S. S. W. ½ W.
N. N. E. ¾ E.	30	56¼	N. N. W. ¾ W.	2¾	S. S. E. ¾ E.	30	56¼	S. S. W. ¾ W.
N. E. by N.	**33**	**45**	**N. W. by N.**	**3**	**S. E. by S.**	**33**	**45**	**S. W. by S.**
N. E. ¾ N.	36	33¾	N. W. ¾ N.	3¼	S. E. ¾ S.	36	33¾	S. W. ¾ S.
N. E. ½ N.	39	22½	N. W. ½ N.	3½	S. E. ½ S.	39	22½	S. W. ½ S.
N. E. ¼ N.	42	11¼	N. W. ¼ N.	3¾	S. E. ¼ S.	42	11¼	S. W. ¼ S.
N. E.	**45**	**0**	**N. W.**	**4**	**S. E.**	**45**	**0**	**S. W.**
N. E. ¼ E.	47	48¾	N. W. ¼ W.	4¼	S. E. ¼ E.	47	48¾	S. W. ¼ W.
N. E. ½ E.	50	37½	N. W. ½ W.	4½	S. E. ½ E.	50	37½	S. W. ½ W.
N. E. ¾ E.	53	26¼	N. W. ¾ W.	4¾	S. E. ¾ E.	53	26¼	S. W. ¾ W.
N. E. by E.	**56**	**15**	**N. W. by W.**	**5**	**S. E. by E.**	**56**	**15**	**S. W. by W.**
N. E. by E. ¼ E.	59	3¾	N. W. by W. ¼ W.	5¼	S. E. by E. ¼ E.	59	3¾	S. W. by W. ¼ W.
N. E. by E. ½ E.	61	52½	N. W. by W. ½ W.	5½	S. E. by E. ½ E.	61	52½	S. W. by W. ½ W.
N. E. by E. ¾ E.	64	41¼	N. W. by W. ¾ W.	5¾	S. E. by E. ¾ E.	64	41¼	S. W. by W. ¾ W.
E. N. E.	**67**	**30**	**W. N. W.**	**6**	**E. S. E.**	**67**	**30**	**W. S. W.**
E. by N. ¾ N.	70	18¾	W. by N. ¾ N.	6¼	E. by S. ¾ S.	70	18¾	W. by S. ¾ S.
E. by N. ½ N.	73	7½	W. by N. ½ N.	6½	E. by S. ½ S.	73	7½	W. by S. ½ S.
E. by N. ¼ N.	75	56¼	W. by N. ¼ N.	6¾	E. by S. ¼ S.	75	56¼	W. by S. ¼ S.
E. by N.	**78**	**45**	**W. by N.**	**7**	**E. by S.**	**78**	**45**	**W. by S.**
E. ¾ N.	81	33¾	W. ¾ N.	7¼	E. ¾ S.	81	33¾	W. ¾ S.
E. ½ N.	84	22½	W. ½ N.	7½	E. ½ S.	84	22½	W. ½ S.
E. ¼ N.	87	11¼	W. ¼ N.	7¾	E. ¼ S.	87	11¼	W. ¼ S.
East	**90**	**0**	**West**	**8**	**East**	**90**	**0**	**West**

N	0	1	2	3	4	5	6	7	8	9	Diff.
10	0000	0043	0086	0128	0170	0212	0253	0294	0334	0374	43—40
11	0414	0453	0492	0531	0569	0607	0645	0682	0719	0755	39—36
12	0792	0828	0864	0899	0934	0969	1004	1038	1072	1106	36—33
13	1139	1173	1206	1239	1271	1303	1335	1367	1399	1430	34—31
14	1461	1492	1523	1553	1584	1614	1644	1673	1703	1732	31—29
15	1761	1790	1818	1847	1875	1903	1931	1959	1987	2014	29—27
16	2041	2068	2095	2122	2148	2175	2201	2227	2253	2279	27—25
17	2304	2330	2355	2380	2405	2430	2455	2480	2504	2529	26—24
18	2553	2577	2601	2625	2648	2672	2695	2718	2742	2765	24—23
19	2788	2810	2833	2856	2878	2900	2923	2945	2967	2989	23—21
20	3010	3032	3054	3075	3096	3118	3139	3160	3181	3201	22—20
21	3222	3243	3263	3284	3304	3324	3345	3365	3385	3404	21—19
22	3424	3444	3464	3483	3502	3522	3541	3560	3579	3598	20—19
23	3617	3636	3655	3674	3692	3711	3729	3747	3766	3784	19—18
24	3802	3820	3838	3856	3874	3892	3909	3927	3945	3962	18—17
25	3979	3997	4014	4031	4048	4065	4082	4099	4116	4133	18—17
26	4150	4166	4183	4200	4216	4232	4249	4265	4281	4298	17—16
27	4314	4330	4346	4362	4378	4393	4409	4425	4440	4456	16—15
28	4472	4487	4502	4518	4533	4548	4564	4579	4594	4609	16—15
29	4624	4639	4654	4669	4683	4698	4713	4728	4742	4757	15—14
30	4771	4786	4800	4814	4829	4843	4857	4871	4886	4900	15—14
31	4914	4928	4942	4955	4969	4983	4997	5011	5024	5038	14—13
32	5051	5065	5079	5092	5105	5119	5132	5145	5159	5172	14—13
33	5185	5198	5211	5224	5237	5250	5263	5276	5289	5302	13
34	5315	5328	5340	5353	5366	5378	5391	5403	5416	5428	13—12
35	5441	5453	5465	5478	5490	5502	5514	5527	5539	5551	13—12
36	5563	5575	5587	5599	5611	5623	5635	5647	5658	5670	12—11
37	5682	5694	5705	5717	5729	5740	5752	5763	5775	5786	12—11
38	5798	5809	5821	5832	5843	5855	5866	5877	5888	5899	12—11
39	5911	5922	5933	5944	5955	5966	5977	5988	5999	6010	11
40	6021	6031	6042	6053	6064	6075	6085	6096	6107	6117	11—10
41	6128	6138	6149	6160	6170	6180	6191	6201	6212	6222	11—10
42	6232	6243	6253	6263	6274	6284	6294	6304	6314	6325	11—10
43	6335	6345	6355	6365	6375	6385	6395	6405	6415	6425	10
44	6435	6444	6454	6464	6474	6484	6493	6503	6513	6522	10— 9
45	6532	6542	6551	6561	6571	6580	6590	6599	6609	6618	10— 9
46	6628	6637	6646	6656	6665	6675	6684	6693	6702	6712	10— 9
47	6721	6730	6739	6749	6758	6767	6776	6785	6794	6803	10— 9
48	6812	6821	6830	6839	6848	6857	6866	6875	6884	6893	9
49	6902	6911	6920	6928	6937	6946	6955	6964	6972	6981	9— 8
50	6990	6998	7007	7016	7024	7033	7042	7050	7059	7067	9— 8
51	7076	7084	7093	7101	7110	7118	7126	7135	7143	7152	9— 8
52	7160	7168	7177	7185	7193	7202	7210	7218	7226	7235	9— 8
53	7243	7251	7259	7267	7275	7284	7292	7300	7308	7316	9— 8
54	7324	7332	7340	7348	7356	7364	7372	7380	7388	7396	8

比例部分					
Diff.	1	2	3	4	5
43	4	9	13	17	22
42	4	8	13	17	21
41	4	8	12	16	21
40	4	8	12	16	20
39	4	8	12	16	20
38	4	8	11	15	19
37	4	7	11	15	19
36	4	7	11	14	18
35	4	7	11	14	18
34	3	7	10	14	17
33	3	7	10	13	17
32	3	6	10	13	16
31	3	6	9	12	16
30	3	6	9	12	15
29	3	6	9	12	15
28	3	6	8	11	14
27	3	5	8	11	14
26	3	5	8	10	13
25	3	5	8	10	13
24	2	5	7	10	12
23	2	5	7	9	12
22	2	4	7	9	11
21	2	4	6	8	11
20	2	4	6	8	10
19	2	4	6	8	10
18	2	4	5	7	9
17	2	3	5	7	9
16	2	3	5	6	8
15	2	3	5	6	8
14	1	3	4	6	7
13	1	3	4	5	7
12	1	2	4	5	6
11	1	2	3	4	6
10	1	2	3	4	5
9	1	2	3	4	5
8	1	2	2	3	4
7	1	1	2	3	4
6	1	1	2	2	3
5	1	1	2	2	3

N 0 1 2 3 4 5 6 7 8 9 Diff.
Diff. 1 2 3 4 5
比例部分

P. P.					N	0	1	2	3	4	5	6	7	8	9	Diff.
6	7	8	9	Diff.												
26	30	34	39	43	55	7404	7412	7419	7427	7435	7443	7451	7459	7466	7474	
25	29	34	38	42	56	7482	7490	7497	7505	7513	7520	7528	7536	7543	7551	
25	29	33	37	41	57	7559	7566	7574	7582	7589	7597	7604	7612	7619	7627	8—7
					58	7634	7642	7649	7657	7664	7672	7679	7686	7694	7701	
24	28	32	36	40	59	7709	7716	7723	7731	7738	7745	7752	7760	7767	7774	
23	27	31	35	39	60	7782	7789	7796	7803	7810	7818	7825	7832	7839	7846	
23	27	30	34	38	61	7853	7860	7868	7875	7882	7889	7896	7903	7910	7917	
22	26	30	33	37	62	7924	7931	7938	7945	7952	7959	7966	7973	7980	7987	8—6
22	25	29	32	36	63	7993	8000	8007	8014	8021	8028	8035	8041	8048	8055	
21	25	28	32	35	64	8062	8069	8075	8082	8089	8096	8102	8109	8116	8122	
20	24	27	31	34	65	8129	8136	8142	8149	8156	8162	8169	8176	8182	8189	
20	23	26	30	33	66	8195	8202	8209	8215	8222	8228	8235	8241	8248	8254	
19	22	26	29	32	67	8261	8267	8274	8280	8287	8293	8299	8306	8312	8319	7—6
19	22	25	28	31	68	8325	8331	8338	8344	8351	8357	8363	8370	8376	8382	
					69	8388	8395	8401	8407	8414	8420	8426	8432	8439	8445	
18	21	24	27	30	70	8451	8457	8463	8470	8476	8482	8488	8494	8500	8506	
					71	8513	8519	8525	8531	8537	8543	8549	8555	8561	8567	
17	20	23	26	29	72	8573	8579	8585	8591	8597	8603	8609	8615	8621	8627	7—5
17	20	22	25	28	73	8633	8639	8645	8651	8657	8663	8669	8675	8681	8686	
16	19	22	24	27	74	8692	8698	8704	8710	8716	8722	8727	8733	8739	8745	
16	18	21	23	26												
15	18	20	23	25	75	8751	8756	8762	8768	8774	8779	8785	8791	8797	8802	
					76	8808	8814	8820	8825	8831	8837	8842	8848	8854	8859	
14	17	19	22	24	77	8865	8871	8876	8882	8887	8893	8899	8904	8910	8915	6—5
14	16	18	21	23	78	8921	8927	8932	8938	8943	8949	8954	8960	8965	8971	
13	15	18	20	22	79	8976	8982	8987	8993	8998	9004	9009	9015	9020	9025	
13	15	17	19	21	80	9031	9036	9042	9047	9053	9058	9063	9069	9074	9079	
12	14	16	18	20	81	9085	9090	9096	9101	9106	9112	9117	9122	9128	9133	
					82	9138	9143	9149	9154	9159	9165	9170	9175	9180	9186	6—5
11	13	15	17	19	83	9191	9196	9201	9206	9212	9217	9222	9227	9232	9238	
11	13	14	16	18	84	9243	9248	9253	9258	9263	9269	9274	9279	9284	9289	
10	12	14	15	17	85	9294	9299	9304	9309	9315	9320	9325	9330	9335	9340	
10	11	13	14	16	86	9345	9350	9355	9360	9365	9370	9375	9380	9385	9390	
					87	9395	9400	9405	9410	9415	9420	9425	9430	9435	9440	6—4
9	11	12	14	15	88	9445	9450	9455	9460	9465	9469	9474	9479	9484	9489	
8	10	11	13	14	89	9494	9499	9504	9509	9513	9518	9523	9528	9533	9538	
8	9	10	12	13	90	9542	9547	9552	9557	9562	9566	9571	9576	9581	9586	
7	8	10	11	12	91	9590	9595	9600	9605	9609	9614	9619	9624	9628	9633	
7	8	9	10	11	92	9638	9643	9647	9652	9657	9661	9666	9671	9675	9680	5—4
					93	9685	9689	9694	9699	9703	9708	9713	9717	9722	9727	
6	7	8	9	10	94	9731	9736	9741	9745	9750	9754	9759	9763	9768	9773	
5	6	7	8	9	95	9777	9782	9786	9791	9795	9800	9805	9809	9814	9818	
5	6	6	7	8	96	9823	9827	9832	9836	9841	9845	9850	9854	9859	9863	
4	5	6	6	7	97	9868	9872	9877	9881	9886	9890	9894	9899	9903	9908	5—4
4	4	5	5	6	98	9912	9917	9921	9926	9930	9934	9939	9943	9948	9952	
3	4	4	5	5	99	9956	9961	9965	9969	9974	9978	9983	9987	9991	9996	

6 7 8 9 Diff.
P. P.
N 0 1 2 3 4 5 6 7 8 9 Diff.

°	Sin.	Tan.	Sec.	Cosec.	Cot.	Cos.	
0	.0000$_{29}$	.0000$_{29}$	1.000	∞	∞	1.0000	90
1	.0175$_{29}$	.0175$_{29}$	1.000	57.299	57.290	.9998	89
2	.0349$_{29}$	.0349$_{29}$	1.001	28.654	28.636	.9994	88
3	.0523$_{29}$	.0524$_{29}$	1.001	19.107	19.081	.9986	87
4	.0698$_{29}$	.0699$_{29}$	1.002	14.336	14.301	.9976	86
5	.0872$_{29}$	.0875$_{29}$	1.004	11.474	11.430	.9962	85
6	.1045$_{29}$	.1051$_{29}$	1.006	9.567	9.514	.9945	84
7	.1219$_{29}$	.1228$_{30}$	1.008	8.206	8.144	.9925	83
8	.1392$_{29}$	.1405$_{30}$	1.010	7.185	7.115	.9903	82
9	.1564$_{29}$	.1584$_{30}$	1.012	6.392	6.314	.9877	81
10	.1736$_{29}$	.1763$_{30}$	1.015	5.759	5.671	.9848	80
11	.1908$_{29}$	.1944$_{30}$	1.019	5.241	5.145	.9816 6	79
12	.2079$_{28}$	.2126$_{31}$	1.022	4.810	4.705	.9781 6	78
13	.2250$_{28}$	.2309$_{31}$	1.026	4.445$_{52}$	4.331$_{53}$	.9744 7	77
14	.2419$_{28}$	.2493$_{31}$	1.031	4.134$_{45}$	4.011$_{46}$	.9703 7	76
15	.2588$_{28}$	.2679$_{31}$	1.035	3.864$_{39}$	3.732$_{41}$	.9659 8	75
16	.2756$_{28}$	.2867$_{32}$	1.040	3.628$_{35}$	3.487$_{36}$	.9613 8	74
17	.2924$_{28}$	.3057$_{32}$	1.046	3.420$_{31}$	3.271$_{32}$	.9563 9	73
18	.3090$_{28}$	.3249$_{32}$	1.051	3.236$_{27}$	3.078$_{29}$	.9511 9	72
19	.3256$_{27}$	.3443$_{33}$	1.058	3.072$_{25}$	2.904$_{26}$	.9455$_{10}$	71
20	.3420$_{27}$	.3640$_{33}$	1.064	2.924$_{22}$	2.747$_{24}$	.9397$_{10}$	70
21	.3584$_{27}$	.3839$_{34}$	1.071	2.790$_{20}$	2.605$_{22}$	.9336$_{11}$	69
22	.3746$_{27}$	.4040$_{34}$	1.079	2.669$_{18}$	2.475$_{20}$	.9272$_{11}$	68
23	.3907$_{27}$	.4245$_{35}$	1.086	2.559$_{17}$	2.356$_{18}$	.9205$_{12}$	67
24	.4067$_{26}$	.4452$_{35}$	1.095	2.459$_{15}$	2.246$_{17}$	.9135$_{12}$	66
25	.4226$_{26}$	.4663$_{36}$	1.103	2.366$_{14}$	2.145$_{16}$	.9063$_{13}$	65
26	.4384$_{26}$	.4877$_{36}$	1.113	2.281$_{13}$	2.050$_{15}$	.8988$_{13}$	64
27	.4540$_{26}$	.5095$_{37}$	1.122	2.203$_{12}$	1.963$_{14}$	.8910$_{13}$	63
28	.4695$_{26}$	.5317$_{38}$	1.133	2.130$_{11}$	1.881$_{13}$	.8829$_{14}$	62
29	.4848$_{25}$	.5543$_{38}$	1.143	2.063$_{10}$	1.804$_{12}$	.8746$_{14}$	61
30	.5000$_{25}$	.5774$_{39}$	1.155	2.000$_{10}$	1.732$_{11}$	.8660$_{15}$	60
31	.5150$_{25}$	.6009$_{40}$	1.167	1.942 9	1.664$_{11}$	.8572$_{15}$	59
32	.5299$_{25}$	.6249$_{41}$	1.179	1.887 9	1.600$_{10}$	.8480$_{16}$	58
33	.5446$_{24}$	.6494$_{42}$	1.192	1.836 8	1.540$_{10}$	.8387$_{16}$	57
34	.5592$_{24}$	.6745$_{43}$	1.206	1.788 7	1.483 9	.8290$_{16}$	56
35	.5736$_{24}$	.7002$_{44}$	1.221	1.743 7	1.428 9	.8192$_{17}$	55
36	.5878$_{23}$	.7265$_{45}$	1.236	1.701 7	1.376 8	.8090$_{17}$	54
37	.6018$_{23}$	.7536$_{46}$	1.252	1.662 6	1.327 8	.7986$_{18}$	53
38	.6157$_{23}$	.7813$_{48}$	1.269	1.624 6	1.280 8	.7880$_{18}$	52
39	.6293$_{22}$	.8098$_{49}$	1.287	1.589 6	1.235 7	.7771$_{19}$	51
40	.6428$_{22}$	.8391$_{50}$	1.305	1.556	1.192 7	.7660$_{19}$	50
41	.6561$_{22}$	.8693$_{52}$	1.325	1.524	1.150 7	.7547$_{19}$	49
42	.6691$_{21}$	.9004$_{54}$	1.346	1.494	1.111 6	.7431$_{20}$	48
43	.6820$_{21}$	.9325$_{55}$	1.367	1.466	1.072 6	.7314$_{20}$	47
44	.6947$_{21}$	.9657$_{57}$	1.390	1.440	1.036 6	.7193$_{20}$	46
45	.7071	1.0000	1.414	1.414	1.000	.7071	45
	Cos.	Cot.	Cosec.	Sec.	Tan.	Sin.	°

比例部分 P. P.									
Diff.	6′	7′	8′	9′	10′	20′	30′	40′	50′
57	34	40	46	51	57	114	171	228	285
55	33	39	44	50	55	110	165	220	275
54	32	38	43	49	54	108	162	216	270
52	31	36	42	47	52	104	156	208	260
51	31	36	41	46	51	102	153	204	255
50	30	35	40	45	50	100	150	200	250
49	29	34	39	44	49	98	147	196	245
48	29	34	38	43	48	96	144	192	240
47	28	33	38	42	47	94	141	188	235
46	28	32	37	41	46	92	138	184	230
45	27	32	36	41	45	90	135	180	225
44	26	31	35	40	44	88	132	176	220
43	26	30	34	39	43	86	129	172	215
42	25	29	34	38	42	84	126	168	210
41	25	29	33	37	41	82	123	164	205
40	24	28	32	36	40	80	120	160	200
39	23	27	31	35	39	78	117	156	195
38	23	27	30	34	38	76	114	152	190
37	22	26	30	33	37	74	111	148	185
36	22	25	29	32	36	72	108	144	180
35	21	25	28	32	35	70	105	140	175
34	20	24	27	31	34	68	102	136	170
33	20	23	26	30	33	66	99	132	165
32	19	22	26	29	32	64	96	128	160
31	19	22	25	28	31	62	93	124	155
30	18	21	24	27	30	60	90	120	150
29	17	20	23	26	29	58	87	116	145
28	17	20	22	25	28	56	84	112	140
27	16	19	22	24	27	54	81	108	135
26	16	18	21	23	26	52	78	104	130
25	15	18	20	23	25	50	75	100	125
24	14	17	19	22	24	48	72	96	120
23	14	16	18	21	23	46	69	92	115
22	13	15	18	20	22	44	66	88	110
21	13	15	17	19	21	42	63	84	105
20	12	14	16	18	20	40	60	80	100
19	11	13	15	17	19	38	57	76	95
18	11	13	14	16	18	36	54	72	90
17	10	12	14	15	17	34	51	68	85
16	10	11	13	14	16	32	48	64	80
15	9	11	12	14	15	30	45	60	75
14	8	10	11	13	14	28	42	56	70
13	8	9	10	12	13	26	39	52	65
12	7	8	10	11	12	24	36	48	60
11	7	8	9	10	11	22	33	44	55
10	6	7	8	9	10	20	30	40	50
9	5	6	7	8	9	18	27	36	45
8	5	6	6	7	8	16	24	32	40
7	4	5	6	6	7	14	21	28	35
6	4	4	5	5	6	12	18	24	30
Diff.	6′	7′	8′	9′	10′	20′	30′	40′	50′

比例部分 P. P.

三角法ノ公式

$\sin^2\theta + \cos^2\theta = 1, \quad 1 + \tan^2\theta = \sec^2\theta$

$\sin(\theta \pm \varphi) = \sin\theta\cos\varphi \pm \cos\theta\sin\varphi$

$\cos(\theta \pm \varphi) = \cos\theta\cos\varphi \mp \sin\theta\sin\varphi$

$\tan(\theta \pm \varphi) = (\tan\theta \pm \tan\varphi)/(1 \mp \tan\theta\tan\varphi)$

$\sin\theta \pm \sin\varphi = 2\sin\frac{1}{2}(\theta \pm \varphi)\cos\frac{1}{2}(\theta \mp \varphi)$

$\cos\theta + \cos\varphi = 2\cos\frac{1}{2}(\theta+\varphi)\cos\frac{1}{2}(\theta-\varphi)$

$\cos\theta - \cos\varphi = 2\sin\frac{1}{2}(\theta+\varphi)\sin\frac{1}{2}(\varphi-\theta)$

$\sin\theta\cos\varphi = \frac{1}{2}\{\sin(\theta+\varphi) + \sin(\theta-\varphi)\}$

$\cos\theta\sin\varphi = \frac{1}{2}\{\sin(\theta+\varphi) - \sin(\theta-\varphi)\}$

$\cos\theta\cos\varphi = \frac{1}{2}\{\cos(\theta+\varphi) + \cos(\theta-\varphi)\}$

$\sin\theta\sin\varphi = \frac{1}{2}\{\cos(\theta-\varphi) - \cos(\theta+\varphi)\}$

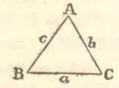
$\sin 2\theta = 2\sin\theta\cos\theta, \quad \cos 2\theta = \cos^2\theta - \sin^2\theta$

$\sin 3\theta = 3\sin\theta - 4\sin^3\theta, \quad \cos 3\theta = 4\cos^3\theta - 3\cos\theta$

$\sin\frac{1}{2}\theta = \pm\sqrt{\frac{1}{2}(1-\cos\theta)}, \quad \cos\frac{1}{2}\theta = \pm\sqrt{\frac{1}{2}(1+\cos\theta)}$

$\text{hav}\ \theta = \frac{1}{2}(1-\cos\theta) = \sin^2\frac{\theta}{2}$

平面三角形



$a^2 = b^2 + c^2 - 2bc\cos A$

$a = b\cos C + c\cos B$

$a : b : c = \sin A : \sin B : \sin C$

$a = (b-c)\sec\theta$, 玆ニ $\tan\theta = \sqrt{4bc\,\text{hav}\,A}\,/(b-c)$

$\sin\frac{A}{2} = \sqrt{(s-b)(s-c)/(bc)}$ *

$\cos\frac{A}{2} = \sqrt{s(s-a)/(bc)}$ *

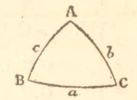
$\sin A = 2\sqrt{s(s-a)(s-b)(s-c)}\,/(bc)$ *

$\tan\frac{1}{2}(B-C) = (b-c)\cot\frac{1}{2}A\,/(b+c)$

三角形ノ面積 $= \frac{1}{2}ab\sin C = \sqrt{s(s-a)(s-b)(s-c)}$ *

*$2s = a + b + c$

球面三角形



$\cos a = \cos b\cos c + \sin b\sin c\cos A$

$\sin a\cos B = \cos b\sin c - \sin b\cos c\cos A$

$\sin a\sin B = \sin b\sin A$

$\cot a\sin b = \cot A\sin C + \cos C\cos b$

$\sin\frac{1}{2}A = \sqrt{\sin(s-b)\sin(s-c)/(\sin b\sin c)}$ *

$\cos\frac{1}{2}A = \sqrt{\sin s\sin(s-a)/(\sin b\sin c)}$ *

$\sin\frac{1}{2}a = \sqrt{\sin E\sin(A-E)/(\sin B\sin C)}$ †

$\cos\frac{1}{2}a = \sqrt{\sin(B-E)\sin(C-E)/\sin B\sin C)}$ †

$\tan\frac{1}{2}(A+B) = \cos\frac{1}{2}(a-b)\cot\frac{1}{2}C/\cos\frac{1}{2}(a+b)$

$\tan\frac{1}{2}(A-B) = \sin\frac{1}{2}(a-b)\cot\frac{1}{2}C/\sin\frac{1}{2}(a+b)$

$\sin\frac{1}{2}(a+b)\sin\frac{1}{2}C = \cos\frac{1}{2}(A-B)\sin\frac{1}{2}c$

$\cos\frac{1}{2}(a+b)\sin\frac{1}{2}C = \cos\frac{1}{2}(A+B)\cos\frac{1}{2}c$

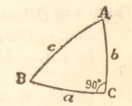
$\sin\frac{1}{2}(a-b)\cos\frac{1}{2}C = \sin\frac{1}{2}(A-B)\sin\frac{1}{2}c$

$\cos\frac{1}{2}(a-b)\cos\frac{1}{2}C = \sin\frac{1}{2}(A+B)\cos\frac{1}{2}c$

三角形ノ面積 $= 2Er^2$ †

*$2s = a + b + c$ †$2E = A + B + C - \pi$

球面直角三角形



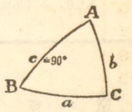
$(C = 90°)$

$\sin A = \sin a\,\text{cosec}\,c, \quad \cos A = \tan b\cot c$

$\tan A = \tan a\,\text{cosec}\,b, \quad \sin A = \cos B\sec b$

$\cos c = \cot A\cot B, \quad \cos c = \cos a\cos b$

球面象限三角形



$(c = 90°)$

$\sin a = \sin A\,\text{cosec}\,C, \quad \cos a = -\tan B\cot C$

$\tan a = \tan A\,\text{cosec}\,B, \quad \sin a = \cos b\sec B$

$\cos C = -\cot a\cot b, \quad \cos C = -\cos A\cos B$

級數

$a + (a+d) + (a+2d) + \cdots\cdots + \{a+(n-1)d\} = n\{2a+(n-1)d\}/2, \quad a + ar + ar^2 + \cdots\cdots + ar^{n-1} = a(1-r^n)/(1-r)$

$(1+x)^n = 1 + nx + n(n-1)x^2/2! + n(n-1)(n-2)x^3/3! + \cdots\cdots, \quad \log_e(1+x) = x - \frac{x^2}{2} + \frac{x^3}{3} - \frac{x^4}{4} + \cdots\cdots\ (x^2 < 1)$

$\sin x = x - x^3/3! + x^5/5! - \cdots\cdots, \quad \cos x = 1 - x^2/2! + x^4/4! - \cdots\cdots, \quad \tan x = x + \frac{x^3}{3} + \frac{2x^5}{15} + \cdots\cdots\ (x^2 < \frac{\pi^2}{4})$

$f(a+x) = f(a) + xf'(a) + x^2f''(a)/2! + \cdots\cdots + x^n f^{(n)}(a)/n! + \cdots\cdots$

$f(x) = f(o) + xf'(o) + x^2f''(o)/2! + \cdots\cdots + x^n f^{(n)}(o)/n! + \cdots\cdots$

恒數 (log ハ常用對數)

$e = 2.71828$	$\log e = M = 0.43429$	$\log M = 9.63778$	$\log N = M \times \log_e N$
$1/M = 2.30259$	$\log 1/M = 0.36222$	$\pi = 3.14159$	$\log\pi = 0.49715$
$\sin 1' = 0.00029089$	$\log\sin 1' = \bar{4}.46373$	$1/\sin 1' = 3437.7$	$\log 1/\sin 1' = 3.53627$