

ELEMENTARY ARITHMETIC,

IN

CHEROKEE AND ENGLISH,

DESIGNED FOR BEGINNERS.

BY JOHN B. JONES.

PREPARED BY AUTHORITY OF THE CHEROKEE NATIONAL COUNCIL.

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CHEROKEE NATIONAL PRESS :

TAHLEQUAH, CHEROKEE NATION.

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1870.

ELEMENTARY ALPHABETIC



CHROMOGENE ENGLISH

DESIGNED FOR TEACHERS

BY JOHN D. BROWN

PREPARED BY AUTHORITY OF THE CHROMOGENE NATIONAL BOARD

14001 1907.1.18.0121

XIV

G. W. D. V. P. O. R. A. S. O. L.

BOOKS 1907.1

ON CHROMOGENE

G. W. D. V. P. O. R. A. S. O. L.

G. W. D. V. P. O. R. A. S. O. L.

1898.1

1898

## P R E F A C E .

It has long been deplored that that portion of the children of this Nation, who do not speak English, have been compelled to lose entirely the benefits of our Public Schools, or else, while attending School, to pore, day after day, over lessons of which they could learn only the *sounds*. They have had to endure all the toil and drudgery of study, without that encouragement which comes from the pleasure of acquiring new ideas.

Some have attended School long enough, and faithfully enough, to have acquired a good education, had the text books been written, and the Schools taught, in their vernacular language. After years of most irksome labor, when they had arrived at manhood and womanhood, many of them have found that they had scarcely acquired sufficient knowledge of the English language to begin successfully the study of the Elementary branches. It was too late; the responsibilities and cares of life were upon them. Baffled and despairing, they have given over the struggle for an education.

As one step toward remedying the evil, the National Council, in November, 1869, appointed Rev. Stephen Foreman, W. P. Boudinot, and myself, a Committee to select an Arithmetic, Geography, and History, to be translated, and published in both the Cherokee and English languages. The Committee has found no Arithmetic suitable to be wholly translated. The work of translation having been entrusted to my hands, I have consulted various authors, and have prepared much of what follows especially for this volume.

It is hoped that every principle has been sufficiently explained to give a clear idea of it, both in the Cherokee and English languages. Teachers will, of course, give many additional examples to their pupils, and have them practice well on those here given.

This little work is now put forth as in part carrying out the design of the National Council. May it prove, to that portion of the people who speak the Cherokee language only, the key to unlock the science of Arithmetic.

JOHN B. JONES.

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14011A0G13D01A1313.

§ 1. 14011A0G13D01A1313 14011A0G13D01A1313 14011A0G13D01A1313,

AD 00Y DH HSA0W.	1	UW	A4A
	2	WF	“
	3	KT	“
	4	OY	“
	5	A0Y	“
	6	36F	“
	7	SF0Y	“
	8	JAW	“
	9	4AW	“
	0	Z1	“

UW unit sv: 00YZ AD 14011A0G13D01A1313 00Y TST UW0F FR LYR0 FR 0Z00S. Z1 0HY0 FR S0S. T0Z WMKA 10R0W 01SW BW0H, AD0 T001A K000; WMKA S00 R0W AD H00.

§ 2. D000 0000 UW A00 D000P A000 Z1, AD TELL, 10, DAF0IZ FR D000 D00.

00Y AD 1 HAW 0Z00S T0000 S000T; Z1Z HAW EHFR EH00 UW A4A FR DH HAW00 FR.

US D10Y BV0WH AD TELL, 11. DH UW A000 FR, 1 A0W, D0 T0000 A0000 FR 1 A0W. 00Y EHFR H0000 UW T000 D0 UW T0000 S000T.

WWS D10Y BV0WH AD TELL, 12. DH T0000 A0000 FR 2 A0W, D0 T0000 A0000 FR 1 A0W. 00Y AD EHFR H0000 WF T0000 A000T, UWZ T0000.

00YZ T1A000 D000 T1P 00000 T0000 FR T00 A000 FR. T0000Z FR WFL A000.

AD H000T.

# ARITHMETIC.

## NOTATION AND NUMERATION.

§ 1. In writing numbers ten figures are used. They are the following:—

1		called		One,
2	-	"	-	Two,
3	-	"	-	Three,
4	-	"	-	Four,
5	-	"	-	Five,
6	-	"	-	Six,
7	-	"	-	Seven,
8	-	"	-	Eight,
9	-	"	-	Nine,
0		which is called a cipher, or Naught.		

One is called a *unit*. Each of the first nine figures express a certain number of units. Naught (0) means nothing, or none. Thus, if you wish to show that there are no apples in a basket, you can write thus:—The number of apples in the basket is, 0.

§ 2. The number *ten* is expressed by writing naught on the right hand of one, thus:—10. This reads, *ten*.

Here 1 stands for the number of *tens* written, and the *naught* shows that there are no units, or ones, here written.

To express *eleven*, you write thus:—11. Here is 1 in the unit's place, and 1 in the ten's place. This shows that there is one unit and one ten written.

To express *twelve*, you write thus:—12. Here is 2 in the unit's place, and 1 in the ten's place. This shows that there are written two units and one ten.

Thus we see that units are written in the first place, reckoning from the right hand, and tens are written in the second place; thus:—

Ե՞՞ ԽընձԱԳ ԿԵԶ ԽըԾԵ՞՞ ԿՏՏ ԻՏԲըԼըԾԻ ԴԴԴԴԴ 13.  
 Ե՞՞ ԽընձԱԳ Օ՛ՅԶ ԽըԾԵ՞՞ ԻՏՏ ՏԲըԼըԾԻ ԴԴԴԴԴ 14.  
 Ե՞՞ ԽընձԱԳ ԳըԿԶ ԽըԾԵ՞՞ ղՄՏ ԻՏԲըԼըԾԻ ԴԴԴԴԴ 15.  
 Ե՞՞ ԽընձԱԳ ԳԲԲԶ ԽըԾԵ՞՞ ԵՄՏ ԻՏԲըԼըԾԻ ԴԴԴԴԴ 16.  
 Ե՞՞ ԽընձԱԳ ՏԲԵ՞՞ԿԶ ԽըԾԵ՞՞ ՏԲԵՏ ԻՏԲըԼըԾԻ ԴԴԴԴԴ 17.  
 Ե՞՞ ԽընձԱԳ ԵԼՄԶ ԽըԾԵ՞՞ ԼՄՏ ԻՏԲըԼըԾԻ ԴԴԴԴԴ 18.  
 Ե՞՞ ԽընձԱԳ ԳԼՄԶ ԽըԾԵ՞՞ ԳԼՄՏ ԻՏԲըԼըԾԻ ԴԴԴԴԴ 19.  
 ՄԲ ԽընձԱԳ ՄՄընձԱԳ ԻՏԲըԼըԾԻ ԴԴԴԴԴԴԴԴԴԴԴԴ 20.  
 ՄԲ ԽընձԱԳ Ե՞՞Զ ԽըԾԵ՞՞ ՄՄընձԱԳ Ե՞՞ ԻՏԲըԼըԾԻ ԴԴԴԴԴԴԴԴԴԴԴԴ 21.  
 ՄԲ ԽընձԱԳ ԳըԿԶ ԽըԾԵ՞՞ ՄՄընձԱԳ ԳըԿԶ ԻՏԲըԼըԾԻ 25.  
 ԿԵ ԽընձԱԳ ԿԵընձԱԳ ԻՏԲըԼըԾԻ ԴԴԴԴԴԴԴԴԴԴԴԴ 30.  
 Օ՛Յ ԽընձԱԳ Օ՛ՏընձԱԳ ԻՏԲըԼըԾԻ ԴԴԴԴԴԴԴԴԴԴԴԴ 40.  
 ԳըԿԶ ԽընձԱԳ ԳընՏընձԱԳ ԻՏԲըԼըԾԻ ԴԴԴԴԴԴԴԴԴԴԴԴ 50.  
 ԳըԿԶ ԽընձԱԳ ԳըԵՄընձԱԳ ԻՏԲըԼըԾԻ ԴԴԴԴԴԴԴԴԴԴԴԴ 60.  
 ՏԲԵ՞՞ԿԶ ԽընձԱԳ ՏԲԵՏընձԱԳ ԻՏԲըԼըԾԻ ԴԴԴԴԴԴԴԴԴԴԴԴ 70.  
 ԵԼՄ ԽընձԱԳ ԼՄընձԱԳ ԻՏԲըԼըԾԻ ԴԴԴԴԴԴԴԴԴԴԴԴ 80.  
 ԳԼՄ ԽընձԱԳ ԳԼՄընձԱԳ ԻՏԲըԼըԾԻ ԴԴԴԴԴԴԴԴԴԴԴԴ 90.

§ 3. 20 ԵԳԳԳ 30 ՁըԼ, 30Զ ԵԳԳԳ 40 ՁըԼ, ԴԳ ԴԵ ՏԳԵԳԵ ԼՏԱԾԳԵԼԵ՞՞ ԻՏԲըԼըԾԻ ձԼԱԾՄՕ՛ ԽընձԱԳ ԴԳ ԽըԾԵ՞՞ ԻՏԲըԼըԾԻ Ե՞՞՛՛ ԲԵԵ.

ՄՄընձԱԳ ԳըԿԶ ՅըԿ ՄԲ ԽընձԱԳ ԻՏԲըԼ, ԳըԿԶ ԽըԾԵ՞՞՞՞; ԴԱՄԲըԶԶ 2 ԱԾԳԵ ԽընձԱԳ ԼԱԾԳԵԼՆ ԲԵԵ, 6Զ ԱԾԳԵ ԽըԾԵ՞՞ ԼԱԾԳԵ ԲԵԵ; ԱԴ ԻԽԵՕ՛ 26.

ԳԼՄընձԱԳ ՏԲԵ՞՞ԿԶ 9 ԻՏԻԽընձԱԳ ԲԵԵ, 7Զ ԻՏԻ ԽըԾԵ՞՞ ԲԵԵ. ԱԴ ԵԼԼ ԱԾԳԵ 97.

§ 4. ԴընձԱԳ ԽընձԱԳ Ե՞՞ ԽընձԱԳՅԵ ԻՏԲըԼըԾԻ. ԹըԿԶ ԱԴ 1 ԴՏԼԵ ԵԼԲ Օ՛ԳԳԳԳԳ ԿԵԼ ՕԱԾԳԵԼՆ ԲԵԵ ԱԾԳԵԼ, ԽըԾԵ՞՞Զ ԴԳ ԽընձԱԳ, ԼԱԾԳԵԼՆ ԲԵԵ ԶԼԵ՞՞ ԼԱԾԳԵ ԵՄ, ԱԴ ԻԵԶԵ 100.

ՏԳՄԵԻԲԵԵ ԵԼԳԳ ԵՄ, ԵԼԵԼԼ ԼԱԾԳԵ Ե՞՞ ԽըԾԵ՞՞, ԴԳ ՄԲ ԽըԾԵ՞՞, ԴԳ Ե՞՞ ԽընձԱԳ ԴԳ ՄԲ ԽընձԱԳ, ԴԳ ԴԵ ՏԳԵԳԳ ՅըԿ ԵԼԼ.

§ 5. Ե՞՞ ԽընձԱԳՅԵ, ԴԳ ՄԲ ԽընձԱԳՅԵ ԴԳ ԴԵ ՏԳԵԳԳԵ ձՄՄՄՄՄ Ե՞՞ Լ400 ԽընձԱԳՅԵ ԲԵԵ ՕԶՅըԿ, ԿԵԼ ՕԱԾԳԵԼ ԼԻԲ ԱԾԳԵ ԻՏԲըԼըԾԻ, ԴԶ ԽըԾԵ՞՞, ԴԳ ԽընձԱԳ ԼԱԾԳԵԼՆ ԲԵԵ ԶԼԵ՞՞ ԼԱԾԳԵ; ԱԴ ԻԵԶԵ.

ՄԲԵԵ	-	-	-	-	-	200
ԿԵԵ	-	-	-	-	-	300
Օ՛ՅԵ	-	-	-	-	-	400
ԳըԿԶԵ	-	-	-	-	-	500

One ten and three units are thirteen	-	-	13
One ten and four units are fourteen	-	-	14
One ten and five units are fifteen	-	-	15
One ten and six units are sixteen	-	-	16
One ten and seven units are seventeen	-	-	17
One ten and eight units are eighteen	-	-	18
One ten and nine units are nineteen	-	-	19
Two tens are twenty	-	-	20
Two tens and one unit are twenty-one	-	-	21
Two ones and five units are twenty-five	-	-	25
Three tens are thirty	-	-	30
Four tens are forty	-	-	40
Five tens are fifty	-	-	50
Six tens are sixty	-	-	60
Seven tens are seventy	-	-	70
Eight tens are eighty	-	-	80
Nine tens are ninety	-	-	90

§ 3. The numbers from 20 to 30, and from 30 to 40, &c., may be expressed by writing the tens and the units of which they are composed.

The number twenty-six is composed of two tens and six units; and is expressed by writing 2 in the place of the tens and six in the place of the units, thus:—26.

Ninety-seven has 9 tens and seven units; written 97.

§ 4. Ten tens are one hundred.

The one is written in the third place from the right hand, which is the hundreds place, and the places of the units and ten are filled by naughts, thus:—100.

The mode of writing one unit and two units, one ten and two tens, &c., has been explained.

§ 5. In writing one hundred, two hundred, &c., write the figure representing the hundreds in the third place, and fill the places of the units and the tens with naughts; thus:—

Two hundred	-	-	-	-	-	200
Three hundred	-	-	-	-	-	300
Four hundred	-	-	-	-	-	400
Five hundred	-	-	-	-	-	500

ඉලිප්ප	-	-	-	-	-	600
දිව්‍යානුප	-	-	-	-	-	700
ධ්‍රව්‍ය	-	-	-	-	-	800
ච්ච්‍රව්‍ය	-	-	-	-	-	900

§ 6. ක්‍රම 1400 ක් වෙලාවේ, ඔබේ ක්‍රම ටිබෙට් ඔබේ තෙමු, තෙමු, Dc තෙමු, ඉතිරි රු 1000, දිව්‍ය 1113 හිස් වෙලාවේ තිබුණු ක්‍රම, ඉතිරි ටිබෙට්, ඉතිරි තෙමු වෙලාවේ.

AD ටිබෙට්. ක්‍රම වෙලාවේ ඔබේ ක්‍රම, ක්‍රම තෙමු, ඉතිරි, ඉතිරි තෙමු; ඔබේ තෙමු; ADZ හි 365.

ඉතිරි දිව්‍ය 1113, 4 තෙමු, 0 (ඉතිරි) ඉතිරි තෙමු, 7Z තෙමු. AD හි 407.

ඉතිරි 1113 5 තෙමු, 0 (ඉතිරි) ඉතිරි තෙමු, Dc 0 (ඉතිරි) ඉතිරි තෙමු; AD හි 500.

§ 7. D ඔබේ තෙමු ඉතිරි තෙමු 1113, DA ඉතිරි 1113 ඉතිරි ඉතිරි තෙමු, Dc තෙමු, Dc තෙමු 1113 රු 0 (Z) 1113; AD හි 1000.

WF තෙමු AD හි 2000.

KT තෙමු AD හි 3000.

ඉතිරි තෙමු AD හි 4000.

§ 8. 1400 වෙලාවේ ච්ච්‍රව්‍ය 1113 වෙලාවේ, ඔබේ Digits seven, ඉතිරි Z ඔබේ cipher, naught, DZ ඉතිරි.

ඔබේ AD Z Dc cipher, naught, ඉතිරි, 1113 වෙලාවේ, ඔබේ ඉතිරි 1400 1113 ඉතිරි ඉතිරි 1113 වෙලාවේ, ඉතිරි.

Tst හිස් වෙලාවේ 1113 ඉතිරි 1400 ඉතිරි රු 1113 sve DV ඉතිරි ඉතිරි, ඔබේ 2 තෙමු Dc වෙලාවේ 1113 Dc 1113 ඉතිරි ඉතිරි 1113 ඉතිරි 1113 වෙලාවේ, ඉතිරි.

2 තෙමු ඉතිරි, ඔබේ 20; KT 1113 ඉතිරි 1113 ඉතිරි 2 තෙමු ඉතිරි, ඔබේ 200; ඉතිරි 1113 ඉතිරි 1113, ඉතිරි WF තෙමු ඉතිරි ඔබේ 2000

1400 ඉතිරි රු 1113 Dc 1113, Dc 1113 ඉතිරි ඉතිරි Dc 1113 ඉතිරි Dc.

ඉතිරි WF 1113 ඉතිරි 1113 ඉතිරි Tst ඉතිරි ඉතිරි Dc 1113 තෙමු 1113 රු 1113.

ඉතිරි KT 1113 ඉතිරි 1113 ඉතිරි Tst ඉතිරි ඉතිරි Dc 1113 තෙමු WF 1113 රු 1113.

ඉතිරි ඉතිරි 1113 රු 1113 ඉතිරි Tst ඉතිරි ඉතිරි Dc 1113 තෙමු KT 1113 රු 1113.

ඔබේ Dc ඉතිරි 1113, ඉතිරි 1113 1113 1113 Tst ඉතිරි ඉතිරි Dc 1113 තෙමු WF 1113 RW 1113 රු 1113 ඉතිරි 1113 Dc 1113.



Six hundred	-	-	-	-	-	-	600
Seven hundred	-	-	-	-	-	-	700
Eight hundred	-	-	-	-	-	-	800
Nine hundred	-	-	-	-	-	-	900

§ 6. With three figures, of three different denominations, standing in the place of units, tens, and hundreds, any number may be expressed, between one and one thousand. Thus:

In the number three hundred and sixty-five, there are three hundreds, six tens, and five units; written thus:—365.

The number four hundred and seven contains 4 hundreds, 0 tens, and 7 units; written thus:—407.

In the number five hundred, there are 5 hundreds, 0 tens, and 0 units; written thus:—500.

§ 7. Ten hundreds are called one thousand. It is written with one in the fourth place, and the places of hundreds, tens and units are filled with naughts, 0. Written thus:—1000.

Two thousand is written thus:—2000.

Three thousand thus:—3000.

Four thousand thus:—4000.

§ 8. Numbers are represented by nine significant figures, called digits, and one naught, or cipher.

This naught, or cipher 0, has no value. It is used only to fill vacant places.

The number expressed by a figure is known by the place which it occupies. Thus 2 in the first place from the right is simply 2 units; in the second place, it is 2 tens, or 20; in the third place, it is 2 hundreds, or 200; in the fourth place, it is 2 thousands, or 2000.

The value of figures increases from right to left ten fold.

One in the second place is equal to ten in the first place.

One in the third place is equal to ten in the second place.

One in the fourth place is equal to ten in the third place.

So of all numbers—one standing in a certain place is equal in value to ten in the next lower place, as in the following table:—



A table is here presented in which the pupil can learn to read figures as high as Hundreds of Trillions. The teacher should take pains to drill the pupil well, both in Cherokee and English.

Units	Tens	Hundreds	Thousands	Tens of Thousands	Hundreds of Thousands	Millions	Tens of Millions	Hundreds of Millions	Billions	Tens of Billions	Hundreds of Billions	Trillions	Tens of Trillions	Hundreds of Trillions	
6															Six.
7	5														Seventy-five.
8	7	9													{ Eight hundred and seventy-nine.
7	0	2	3												{ Seven thousand and twenty-three.
8	0	2	0	1											{ Eighty thousand two hundred and one.
1	2	3	0	8	7										{ One hundred and twenty-three thous- and, eighty-seven.
7	0	0	0	7	3	5									{ Seven million, seven hundred and thirty- five.
4	3	2	1	0	4	6	0								{ Forty-three millions, two hundred and ten thousand, four hun- dred and sixty.
5	4	8	0	0	0	0	8	7							{ Five hundred forty- eight millions and eighty-seven.
6	2	4	5	2	0	0	0	9	0						{ Six billions, two hun- dred forty-five mil- lions, two hundred thousand, & ninety.

T 2 5 4 9 5 3 6 8 2 2  
 T 8 9 4 6 0 2 0 4 3 2 8 8  
 T 7 6 4 7 0 0 0 9 0 7 4 5 6  
 T 8 4 9 1 2 8 7 6 4 1 9 2 8 5  
 T 9 1 2 6 0 0 0 0 0 0 0 0 0 0 0

{  
 \$PTEA WF T2WW-  
 10-0, A 2YJF 0-82-  
 A FLW TGTE10-0,  
 A 2YJF KDA 3LF  
 T2SBL, 1WJF W-  
 W2A WF.

{  
 1WJF FLW2A 0-  
 Y T2WW10-0, 3LF-  
 FJF WF TGTE10-0,  
 0-82A KT T2SBL,  
 WLFJF 1W2A J1W.

{  
 \$P2Y T2KD10-0,  
 3LFFJF 0-82A \$P2Y  
 T2WW10-0, FLWJF-  
 F \$P2Y T2SBL, 0-  
 YJF A2SA 3LF.

{  
 1W2A 0-Y T2KD1-  
 0-0, FLWJF WWS  
 T2WW10-0, 1WJF  
 \$PTEA 3LF TGTE1-  
 0-0, 0-YJF FLWS T-  
 2SBL, WLFJF 1W2A  
 A2Y.

{  
 FLWJF WWS T2K-  
 D10-0, 3LFF T2W-  
 W10-0.

Units  
Tens  
Hundreds  
Thousands  
Tens of Thousands  
Hundreds of Thousands  
Millions  
Tens of Millions  
Hundreds of Millions  
Billions  
Tens of Billions  
Hundreds of Billions  
Trillions  
Tens of Trillions  
Hundreds of Trillions

7 2 5 4 9 5 3 6 8 2 2

Seventy-two billions, five hundred and forty-nine millions, five hundred and thirty-six thousand, eight hundred and twenty two.

8 9 4 6 0 2 0 4 3 2 8 8

Eight hundred and ninety-four billions, six hundred and two millions, forty-three thousand, two hundred and eighty-eight.

7 6 4 7 0 0 0 9 0 7 4 5 6

Seven trillions, six hundred and forty-seven billions, nine hundred and seven thousand, four hundred and fifty-six.

8 4 9 1 2 8 7 6 4 1 9 2 8 5

Eighty-four trillions, nine hundred and twelve billions, eight hundred and seventy six millions, four hundred and nineteen thousand two hundred and eighty-five.

9 1 2 6 0 0 0 0 0 0 0 0 0 0 0 0

Nine hundred and twelve trillions, six hundred billions.

§ 9. DAP JALSA DSA OMA JAMA LLEVT, KT TYZC HSEZT.

- 1. TE LLEVT, TAMA LLEVT SVi.
- 2. LA LLEVT, TAMB LLEVT SVi.
- 3. LA LLEVT, TGLA LLEVT SVi.
- 4. LA LLEVT, TAWA LLEVT SVi.
- 5. LA LLEVT, TKDA LLEVT SVi.
- 6. LA LLEVT, TOLA LLEVT SVi.
- 7. LA LLEVT, TALA LLEVT SVi.
- 8. LA LLEVT, TALA LLEVT SVi.
- 9. LA LLEVT, TALA LLEVT SVi.
- 10. LA LLEVT, TALA LLEVT SVi.
- 11. LA LLEVT, TALA LLEVT SVi.
- 12. LA LLEVT, TALA LLEVT SVi.

§ 10. TELAMA, JAMA JALSA DEEL.—DAB TAP DC-OLA JALAZ SAWA JLLEVA, KTC TYZC.

OMZ DSAH TAP OROO JALSA, OMA KT TYZC FRT, JAMAOMZ TG OMA TST TAMA NY, DC OMA TST TAMB NY, DC OMA TST TGLA NY, DC DB DELA NY.

AD HHEO:

- 1. 10, DAA; MA TAA TAMAOMZ OMA.
- 2. 12, WWS; MA TAA, WJZ TAMA.
- 3. 25, WWAA MA, WJ TAA, MAJZ TAMA.
- 4. 60, JWA, JLE TAA TAMAOMZ OMA.
- 5. 200, WJ, 2 TAA, TAAZ O, DC TAMA O.
- 6. 305, KJ MA; 3 TAA, TAAZ O, TAMAOMZ 5.
- 7. 7405, SY TAMB, OJ MA, 7 TAMB, OJZ TAA, TAAZ O, 5Z TAMA.

§ 11. JAMA JALSA FR Notation SVi. JAMA JALSA FR Numeration SVi.

IFBAJAE JALSA Dc JALSA, OMA JALSA DC JLLEVA DC JALSA.

1. hu hu 67	7. 6124079	13. 804321049
2. hu hu 125	8. 8073405	14. 90067236708
3. hu hu 6256	9. 26940123	15. 870432697082
4. hu hu 4697	10. 9602316	16. 17C4291672301
5. hu hu 23697	11. 87000032	17. 3409672103604
6. hu hu 412304	12. 1987004086	18. 49701342641714
19. hu hu 8760218760541	21. 30267821040291	
20. hu hu 904326170365	22. 907620380467026	

§ 9. For convenience in reading, the figures are divided into periods of three figures each.

The first period is called the Unit period.

The 2d period is called the Thousand period.

The 3d period is called the Million period.

The 4th period is called the Billion period.

The 5th period is called the Trillion period.

The 6th period is called the Quadrillion period.

The 7th period is called the Quintillion period.

The 8th period is called the Sextillion period.

The 9th period is called the Septillion period.

The 10th period is called the Octillion period.

The 11th period is called the Nonillion period.

The 12th period is called the Decillion period.

§ 10. RULE FOR NUMERATION:—Begin at the right hand, and point off the numbers into periods of three figures each.

Then, beginning at the left hand, read the figures in each period, and say whether they are so many units, thousands, millions, &c. Thus:

1. 10, ten; or one ten and no unit.

2. 12, twelve; or one ten and two units.

3. 25, twenty-five; or two tens and five units.

4. 60, sixty; or six tens and no units.

5. 200, two hundred; 2 hundreds, 0 tens, and 0 units.

6. 305, three hundred and five; 3 hundreds, 0 tens, and 5 units.

7. 7405, seven thousand, four hundred and five; 7 thousands, 4 hundreds, 0 tens, and 5 units.

§ 11. Writing figures is called NOTATION.

Reading figures is called NUMERATION.

Examples in Notation and Numeration to be written, pointed off, and read:

1.	67	7.	6124076	13.	804321049
2.	125	8.	8073405	14.	90067236708
3.	6256	9.	26940123	15.	870432697082
4.	4697	10.	9602316	16.	1704291672301
5.	23697	11.	87000032	17.	3409672103604
6.	412304	12.	1987004086	18.	49701342641714
19.	8760218760541	21.	30267821040291		
20.	904326170365	22.	907620380467026		

23. 9080620359704567 | 25. 30621890367081263  
 24. 9806071234560078 | 26. 350673123 51672607

§ 12. D0 1A0000 1400 1A0000, D0 1A0000.

1. 0Y T0000.
2. 0Y T0000, 0000 T0000.
3. 0000.
4. 00 T0000.
5. 00 T0000 0YZ T0000.
6. 0000 000.
7. 00 T0000.
8. 00 T0000, 000 T0000.
9. 0000 0000.
10. 0Y T0000, 0000 T0000.
11. 0000 000.
12. 000 T0000 D0 000 T0000.
13. 000000 000.
14. 000 T0000 000000 T0000.
15. 00000 0000.
16. 000000 0Y.
17. 0Y T000000 D0 00 T000000.
18. 000000 0000.
19. 000000 000000 000.
20. 00 T000000 000 T000000.
21. 0000 000.
22. 0Y T000000 00 T000000 D0 000 T000000.
23. 000000 000.
24. 000000 000000 000.
25. 00 T000000, 00 T000000, D0 00 T000000.
26. 000 T000000, 000 T000000, D0 000 T000000.
27. 00000 0000.
28. 00000 000000.
29. 000000 000.
30. 000 T000000, D0 000 T000000.
31. 00000 000.
32. 000000 000000.
33. 00000 000.
34. 000000 000.
35. 0Y T00000 000000.
36. 00 T00000 000000 D0 000.



23. 9080620359704567 | 25. 30621890367081263  
 24. 9806071234560078 | 26. 350673123051672607

§ 12. Examples to be written in figures, and read :

1. Four units.
2. One ten and six units.
3. Eighteen.
4. Two tens.
5. Two tens and four units.
6. Twenty-eight.
7. Three tens.
8. Three tens and two units.
9. Thirty-seven.
10. Four tens and one unit.
11. Forty-six.
12. Five tens and nine units.
13. Sixty-five.
14. Nine tens and seven units.
15. Eighty-seven.
16. One hundred and four.
17. One hundred and two tens.
18. One hundred and thirty.
19. One hundred and seventy-five.
20. Two hundreds and three units.
21. Three hundred and fourteen.
22. Four hundreds, three tens and five units.
23. Five hundred and two.
24. Six hundred and twenty-five.
25. Two hundreds, two tens and two units.
26. Nine hundreds, nine tens and nine units.
27. Eight hundred and seven.
28. Eight hundred and seventy.
29. Nine hundred and one.
30. Six hundreds and six units.
31. Three hundred and nine.
32. One hundred and ninety.
33. Two hundred and two.
34. One hundred and one.
35. One thousand and twenty.
36. Two thousand and five hundred and two.

37. W P T 0000 T 0000, 000 T 0000, T 000000 0000,  
T 0000 0000, 000 T 0000.

38. K T T 0000, 00 T 000000, T 0000 0000, 0000 T  
0000.

39. 00 T 0000 T 0000, W P T 0000, T 000000 0000,  
T 0000 0000 T 0000 0000.

40. K T T 000000 T 0000, 00 T 0000 T 0000, 00 T 0000  
0000, 000 T 000000, 000 T 0000, K T T 0000. 0000 D 0  
0000 K T 00 0000 00 T 0000, 000000 000000 K T.

41. 000 T 000000, K T T 000000 T 0000, 000 T 0000  
T 0000, T 0000 0000, K T T 000000, 00 T 0000, T 0000  
0000.

42. 000 T 000000,

43. 00 T 0000 T 0000, 000 T 000000, T 000000 T  
0000 0000, 000 T 0000 T 0000, K T T 0000, T 000000  
0000 W P T 0000, 000 T 0000.

44. 000 T 000000 T 000000, 0000 T 0000 T 000000,  
T 000000 0000, 0000 T 000000 T 0000, 00 T 0000 T  
0000, K T T 0000, 000 T 000000, 0000 T 0000, 000 T  
0000.

45. 00 T 000000, 00 T 000000, 0000.

46. 0000 T 000000 W P 00 T 0000 0000.

47. 000000 W P 0000 000 T 000000, 000000 T 0000  
0000, 00 T 0000, W P 00 0000 K T.

DHGH TJO-11 1400 1200 1300 1400 1500 1600 1700 1800 1900 2000

§ 13. 0000 T 0000 00 1400 000000 D 000 0000  
0000. 000000 T 0000 000000 000 1400, D H G H 0  
0000 0000.

D H G H 0000 00 I D 000 00 000, V D 000, 000 000  
000, X, 0000; L, 000000; C, 000000; D, 000000; M 00  
T 0000.

000 000 00 D 0000 1400 000.

1 T 000000 0000 0000 0000 00 00 000000 000000 000000  
0000 000000 000000 000 T 00 T 00 0000 000000. 00 00  
000 II 0000 W P 000, III 0000 K T 000, XX 0000  
W P 0000 000, XXX 0000 K D 0000 000.

2. 0000 00 1400 0000 0000 000000 T 0000 0000  
T 00 T 0000 0000, 0000 0000 000000 000 T 00 T 0000 0000 000

37. Two tens of thousands, five thousands, no hundreds, no tens, six units.

38. Three thousands, four hundreds, no tens, and six units.

39. Four tens of thousands, two thousands, no hundreds, no tens, and no units.

40. Three hundreds of thousands, four tens of thousands, one thousand, five hundreds, six tens and three units; or three hundred and forty-one thousands, five hundred and sixty-three.

41. Five millions, three hundreds of thousands, six tens of thousands, no thousands, three hundreds, one ten, no units.

42. Six millions.

43. Four tens of millions, five millions, no hundreds of thousands, eight tens of thousands, three thousands, no hundreds, two tens, and six units.

44. Eight hundreds of millions, seven tens of millions, no millions, seven hundreds of thousands, four tens of thousands, three thousands, five hundreds, seven tens, and eight units.

45. One billion, one million, and forty.

46. Forty billions, two hundred thousand, and five.

47. Seven hundred and twenty-six billions, fifty millions, one thousand, two hundred and forty-three.

### ROMAN NOTATION.

§ 13. The common method of representing numbers by figures is termed the Arabic. Another method, by means of letters, is called the Roman method.

In the Roman method, the letter I stands for one; V for five; X, ten; L, fifty; C, one hundred; D, five hundred; M, one thousand.

Numbers are represented on the following principles:

1. Every time a letter is repeated, the value of that letter is added. Thus: II denote two; III denote three; XX denote twenty; XXX thirty.

2. When a letter of less value is placed before one of greater value, the less is taken from the greater; but if the



less is placed after the greater, the value of the greater is increased.

Thus IV denotes four, while VI denotes six.

3. A line over a letter increases its value a thousand times. Thus:  $\bar{V}$  denotes 5000;  $\bar{M}$  denotes one million.

## TABLE OF ROMAN NOTATION.

I. One.	XXX. Thirty.
II. Two.	XL. Forty.
III. Three.	L. Fifty.
IV. Four.	LX. Sixty.
V. Five.	LXX. Seventy.
VI. Six.	LXXX. Eighty.
VII. Seven.	XC. Ninety.
VIII. Eight.	C. One hundred.
IX. Nine.	CC. Two hundred.
X. Ten.	CCC. Three hundred.
XI. Eleven.	CCCC. Four hundred.
XII. Twelve.	D. Five hundred.
XIII. Thirteen.	DC. Six hundred.
XIV. Fourteen.	DCC. Seven hundred.
XV. Fifteen.	DCCC. Eight hundred.
XVI. Sixteen.	DCCCC. Nine hundred.
XVII. Seventeen.	M. One thousand.
XVIII. Eighteen.	MD. Fifteen hundred.
XIX. Nineteen.	MM. Two thousand.
XX. Twenty.	MDCCLXX. 1870.
XXI. Twenty-one.	

§ 14. The preceding illustrations show the three methods of expressing numbers.

1st. By words, or ordinary language.

2d. By figures, called the Arabic method.

3d. By letters, called the Roman method.

ശ്ലോകങ്ങൾ.

§ 15. 1. T൫Z 2 തലശ്ശെരി കഥകൾ, 3Z തലശ്ശെരി കഥകൾ, AWA തലശ്ശെരി കഥകൾ?

ശ്ലോകങ്ങൾ ൧ തലശ്ശെരി.

2. ൫൦-൫൧ ലക്ഷ്യം 12 തലശ്ശെരി DJJB&Y, 5Z തലശ്ശെരി A-ജെ ലക്ഷ്യം; AWA തലശ്ശെരി UJJBET? ശ്ലോകങ്ങൾ 17 തലശ്ശെരി.

3. ൫൩ 3 തലശ്ശെരി OJB&Y കഥ, 7Z തലശ്ശെരി OJB&Y ൯ ലക്ഷ്യം, 9Z തലശ്ശെരി OJB&Y DWപക്ഷം; AWA തലശ്ശെരി S-REGLA ൯? ശ്ലോകങ്ങൾ 22 തലശ്ശെരി.

§ 16. WP ലക്ഷ്യം, D൪ OJJP TST കഥ, കൺകഥകൾ, ശ്ലോകങ്ങൾ SVI. ൫൦YZ ശ്ലോകങ്ങൾ TST ൫൯൯൮൯൯൯൯ ൯൯, SVI.

ലക്ഷ്യം ശ്ലോകങ്ങൾ.

§ 17. AD ശ്ലോകങ്ങൾ + , PLUS, SVI, ൫൯൯൯ ൯൯.

WPZ ലക്ഷ്യം ൯൯൯ D൪൯ ൯൯൯ ൯൯൯ ശ്ലോകങ്ങൾ ൫൯൯൯; ൯൯൯ AD 4 + , ൫൯൯൯ : D൪ 2 ലക്ഷ്യം ൯൯.

AD ശ്ലോകങ്ങൾ - TJW൪ ൯൯ ൫൯൯൯ SVI, ൫൯൯൯ ൫൯൯൯ ൯൯൯ ലക്ഷ്യം ൯൯൯ ൯൯ D൪൯ ൯൯൯ SVET, TJW൪ TJSS൯൯ ൯൯.

AD ൯൯൯ 4+2= , AD ൯൯൯ ൯൯, ൯൯൯ 4, 2Z ലക്ഷ്യം 6 ൯൯. D൪ൻൻൻ AD ൯൯ 4 2Z 6 ൯൯൯൯.

ശ്ലോകങ്ങൾ ൫൯൯൯ ൯൯൯൯.

2 D൪ 1 3 TY	3 D൪ 1 4 TY	4 D൪ 1 5 TY
2 " 2 4 "	3 " 2 5 "	4 " 2 6 "
2 " 3 5 "	3 " 3 6 "	4 " 3 7 "
2 " 4 6 "	3 " 4 7 "	4 " 4 8 "
2 " 5 7 "	3 " 5 8 "	4 " 5 9 "
2 " 6 8 "	3 " 6 9 "	4 " 6 10 "
2 " 7 9 "	3 " 7 10 "	4 " 7 11 "
2 " 8 10 "	3 " 8 11 "	4 " 8 12 "
2 " 9 11 "	3 " 9 12 "	4 " 9 13 "
2 " 10 12 "	3 " 10 13 "	4 " 10 14 "
2 " 11 13 "	3 " 11 14 "	4 " 11 15 "
2 " 12 14 "	3 " 12 15 "	4 " 12 16 "

## ADDITION.

§ 15. 1. If you have 2 cents, and find 3 cents, how many cents will you have? Ans. 5.

2. I spent 12 cents for a slate, and 5 cents for a copy-book; how many cents did I spend? Ans. 17 cents.

3. John gave 6 cents for an orange, 7 cents for a lead pencil, and 9 cents for a ball; how many cents did they all cost? Ans. 22 cents.

§ 16. The process of uniting two or more numbers into one number is called Addition.

The number obtained by the addition is called the sum.

## OF THE SIGNS.

§ 17. The sign  $+$ , called *plus*, means added. When it stands between two numbers, it shows that they are to be added. Thus:  $4+2$  means that 4 and 2 are to be added together.

The sign  $=$  is called the sign of equality, and denotes that the quantities between which it stands equal each other.

The expression:  $4+2=6$ , means that the sum of 4 and 2 is 6. Read 4 and 2 are six.

## ADDITION TABLE.

2 and 1 are 3	3 and 1 are 4	4 and 1 are 5
2 " 2 " 4	3 " 2 " 5	4 " 2 " 6
2 " 3 " 5	3 " 3 " 6	4 " 3 " 7
2 " 4 " 6	3 " 4 " 7	4 " 4 " 8
2 " 5 " 7	3 " 5 " 8	4 " 5 " 9
2 " 6 " 8	3 " 6 " 9	4 " 6 " 10
2 " 7 " 9	3 " 7 " 10	4 " 7 " 11
2 " 8 " 10	3 " 8 " 11	4 " 8 " 12
2 " 9 " 11	3 " 9 " 12	4 " 9 " 13
2 " 10 " 12	3 " 10 " 13	4 " 10 " 14
2 " 11 " 13	3 " 11 " 14	4 " 11 " 15
2 " 12 " 14	3 " 12 " 15	4 " 12 " 16

5	D♂	1	6	TY
5	“	2	7	“
5	“	3	8	“
5	“	4	9	“
5	“	5	10	“
5	“	6	11	“
5	“	7	12	“
5	“	8	13	“
5	“	9	14	“
5	“	10	15	“
5	“	11	16	“
5	“	12	17	“

6	D♂	1	7	TY
6	“	2	8	“
6	“	3	9	“
6	“	4	10	“
6	“	5	11	“
6	“	6	12	“
6	“	7	13	“
6	“	8	14	“
6	“	9	15	“
6	“	10	16	“
6	“	11	17	“
6	“	12	18	“

7	D♂	1	8	TY
7	“	2	9	“
7	“	3	10	“
7	“	4	11	“
7	“	5	12	“
7	“	6	13	“
7	“	7	14	“
7	“	8	15	“
7	“	9	16	“
7	“	10	17	“
7	“	11	18	“
7	“	12	19	“

8	D♂	1	9	TY
8	“	2	10	“
8	“	3	11	“
8	“	4	12	“
8	“	5	13	“
8	“	6	14	“
8	“	7	15	“
8	“	8	16	“
8	“	9	17	“
8	“	10	18	“
8	“	11	19	“
8	“	12	20	“

9	D♂	1	10	TY
9	“	2	11	“
9	“	3	12	“
9	“	4	13	“
9	“	5	14	“
9	“	6	15	“
9	“	7	16	“
9	“	8	17	“
9	“	9	18	“
9	“	10	19	“
9	“	11	20	“
9	“	12	21	“

10	D♂	1	11	TY
10	“	2	12	“
10	“	3	13	“
10	“	4	14	“
10	“	5	15	“
10	“	6	16	“
10	“	7	17	“
10	“	8	18	“
10	“	9	19	“
10	“	10	20	“
10	“	11	21	“
10	“	12	22	“

11	D♂	1	12	TY
11	“	2	13	“
11	“	3	14	“
11	“	4	15	“
11	“	5	16	“
11	“	6	17	“
11	“	7	18	“
11	“	8	19	“
11	“	9	20	“
11	“	10	21	“
11	“	11	22	“
11	“	12	23	“
11	“	13	24	“

12	D♂	1	13	TY
12	“	2	14	“
12	“	3	15	“
12	“	4	16	“
12	“	5	17	“
12	“	6	18	“
12	“	7	19	“
12	“	8	20	“
12	“	9	21	“
12	“	10	22	“
12	“	11	23	“
12	“	12	24	“
12	“	13	25	“

13	D♂	1	14	TY
13	“	2	15	“
13	“	3	16	“
13	“	4	17	“
13	“	5	18	“
13	“	6	19	“
13	“	7	20	“
13	“	8	21	“
13	“	9	22	“
13	“	10	23	“
13	“	11	24	“
13	“	12	25	“
13	“	13	26	“



5 and 1 are 6	6 and 1 are 7	7 and 1 are 8
5 " 2 " 7	6 " 2 " 8	7 " 2 " 9
5 " 3 " 8	6 " 3 " 9	7 " 3 " 10
5 " 4 " 9	6 " 4 " 10	7 " 4 " 11
5 " 5 " 10	6 " 5 " 11	7 " 5 " 12
5 " 6 " 11	6 " 6 " 12	7 " 6 " 13
5 " 7 " 12	6 " 7 " 13	7 " 7 " 14
5 " 8 " 13	6 " 8 " 14	7 " 8 " 15
5 " 9 " 14	6 " 9 " 15	7 " 9 " 16
5 " 10 " 15	6 " 10 " 16	7 " 10 " 17
5 " 11 " 16	6 " 11 " 17	7 " 11 " 18
5 " 12 " 17	6 " 12 " 18	7 " 12 " 19

8 and 1 are 9	9 and 1 are 10	10 and 1 are 11
8 " 2 " 10	9 " 2 " 11	10 " 2 " 12
8 " 3 " 11	9 " 3 " 12	10 " 3 " 13
8 " 4 " 12	9 " 4 " 13	10 " 4 " 14
8 " 5 " 13	9 " 5 " 14	10 " 5 " 15
8 " 6 " 14	9 " 6 " 15	10 " 6 " 16
8 " 7 " 15	9 " 7 " 16	10 " 7 " 17
8 " 8 " 16	9 " 8 " 17	10 " 8 " 18
8 " 9 " 17	9 " 9 " 18	10 " 9 " 19
8 " 10 " 18	9 " 10 " 19	10 " 10 " 20
8 " 11 " 19	9 " 11 " 20	10 " 11 " 21
8 " 12 " 20	9 " 12 " 21	10 " 12 " 22

11 and 1 are 12	12 and 1 are 13	13 and 1 are 14
11 " 2 " 13	12 " 2 " 14	13 " 2 " 15
11 " 3 " 14	12 " 3 " 15	13 " 3 " 16
11 " 4 " 15	12 " 4 " 16	13 " 4 " 17
11 " 5 " 16	12 " 5 " 17	13 " 5 " 18
11 " 6 " 17	12 " 6 " 18	13 " 6 " 19
11 " 7 " 18	12 " 7 " 19	13 " 7 " 20
11 " 8 " 19	12 " 8 " 20	13 " 8 " 21
11 " 9 " 20	12 " 9 " 21	13 " 9 " 22
11 " 10 " 21	12 " 10 " 22	13 " 10 " 23
11 " 11 " 22	12 " 11 " 23	13 " 11 " 24
11 " 12 " 23	12 " 12 " 24	13 " 12 " 25

## DOLLE EL J400J.

## DPL0A0VJ.

- § 18. 1. KH sot 3 DHUO-0 00-CZ 4 sot; AWA SHO? JABBY. 3 DHUO-0 4Z DHUO-0 5JSCUO, 7 DHUO-0 HSP000.
- 00YZ HSP00VJ0T TJW KR 7 DHUO-0 SHO.
2. TH KT FA S&Y HHZ DB WF SΛQY; AWA TST 00 SPT?
3. DJG O-Y RSW S&0&Y, 00 D0 DB WF S&0&Y; AWA TST SP HSP?
4. O-Y DS-2 LY&Y, YGZ D0S0 DB KT DS-2A DTJBB, AWA TST LY0?
5. T0Y SP00Y JSTH00J S&Y, GHZ DB WF SΛQY; AWA TST SPT.?
6. QH O-Y DS-2A sot 0VZ KT sot; AWA TST SHO? TJW?
7. RVH D0P 00R TR A0Y DS-2A DTJBB&Y, 0P4H2 SP00Y DS-2A DTJBB&Y, AWA TST SP00WJ TJW?
8. PH WF T000-TJ S&Y HHZ DB P0P SΛQY AWA TST SPT HSP?
9. AWA TST HSP0000 A0Y RSW D0 P0P RSW?
10. AWA TST O-Y DS-2A D0 JΛW DS-2A?
11. AWA TST 2 D0 3? 2 D0 5? 2 D0 7? 2 D0 9? 2 D0 4? 2 D0 2? 2 D0 8? 2 D0 6?
12. AWA TST 3 D0 3? 3 D0 5? 3 D0 7? 3 D0 9? 3 D0 4? 3 D0 6? 3 D0 8? 3 D0 9?
13. AWA TST 4 D0 3? 4 D0 5? 4 D0 8? 4 D0 9? 4 D0 1? 4 D0 2? 4 D0 4? 4 D0 7?
14. AWA TST 5 D0 3? 5 D0 4? 5 D0 7? 5 D0 8? 5 D0 9? 5 D0 2? 5 D0 5? 5 D0 6? 5 D0 1?
15. AWA TST 6 D0 2? 6 D0 4? 6 D0 3? 6 D0 5? 6 D0 7? 6 D0 9? 6 D0 1? 6 D0 6? 6 D0 8?
16. AWA TST 7 D0 3? 7 D0 5? 7 D0 7? 7 D0 6? 7 D0 8? 7 D0 9? 7 D0 2? 7 D0 4? 7 D0 10?
17. AWA TST 8 D0 2? 8 D0 4? 8 D0 5? 8 D0 7? 8 D0 9? 8 D0 8? 8 D0 1? 8 D0 3? 8 D0 6?

## ORAL EXERCISES.

## EXAMPLES FOR PRACTICE.

§ 18. 1. James has three pears and his younger brother has four; how many have both?

ILLUSTRATION: 3 pears added to 4 pears make 7 pears.—therefore both have 7 pears.

2. Thomas had three nuts and James gave him two more; how many did he then have?

3. A boy found four apples and then found two more; how many did he have in all?

4. I had four dollars and a man has paid me three dollars more; how many have I?

5. Enoch had seven marbles and John gave him two more; how many did he have?

6. Benjamin has four dollars and his sister has three; how many have both?

7. For a barrel of flour I paid five dollars and for sugar I paid seven dollars; how much did both cost?

8. James had two cents and Samuel gave him six more; how many did he have in all?

9. How many are five apples and six apples?

10. How many are four dollars and eight dollars?

11. How many are 2 and 3? 2 and 5? 2 and 7? 2 and 9? 2 and 4? 2 and 2? 2 and 8? 2 and 6?

12. How many are 3 and 3? 3 and 5? 3 and 7? 3 and 9? 3 and 4? 3 and 6? 3 and 8? 3 and 9?

13. How many are 4 and 3? 4 and 5? 4 and 8? 4 and 9? 4 and 1? 4 and 2? 4 and 4? 4 and 7?

14. How many are 5 and 4? 5 and 7? 5 and 8? 5 and 9? 5 and 2? 5 and 5? 5 and 6? 5 and 1? 5 and 3?

15. How many are 6 and 2? 6 and 4? 6 and 3? 6 and 5? 6 and 7? 6 and 9? 6 and 1? 6 and 6? 6 and 8?

16. How many are 7 and 3? 7 and 5? 7 and 7? 7 and 6? 7 and 8? 7 and 9? 7 and 2? 7 and 4? 7 and 10?

17. How many are 8 and 2? 8 and 4? 8 and 5? 8 and 7? 8 and 9? 8 and 8? 8 and 1? 8 and 3? 8 and 6?

18. AWA TST 9 Dc 1? 9 Dc 3? 9 Dc 5? 9 Dc 4? 9 Dc 6? 9 Dc 8? 9 Dc 9? 9 Dc 2?

19. AWA TST 11 Dc 3? 11 Dc 2? 11 Dc 4? 11 Dc 6? 11 Dc 7? 11 Dc 9? 11 Dc 11? 11 Dc 13? 11 Dc 12? 11 Dc 2 Dc 3? 11 Dc 4 Dc 4? 11 Dc 5 Dc 5? 12 Dc 7 Dc 3? 12 Dc 6 Dc 3? 8 Dc 8 Dc 4? 9 Dc 5 Dc 6? 9 Dc 8 Dc 8?

20. OoA ssoA vbrw flw tello-ta dtjby, slyy-z tello-ta dtjby & sfb tgrla s-alo-oo doft, awa tst tjtbf tjw?

21. Tgz accawo jawf us tello-ta dgjb, ofsw-az flw tello-ta dgjb awa tst joegela sy tjw?

22. Gh ojbryy ms slyy tello-ta jshela slat, wwsz tello-ta ss ofsoo; awa tst ds-a sy4t?

00-hs-a jawgn jawga dftbaav.

§ 19. 1. Iph 63 tello-ta say, ovbz 35 tello-ta say awa tello-ta spt?

Uyo ooy ad jala fr telyo dc tello-aa say-a jgaa ofohip vya-s telyo dc tello-aa say-a ft jala; ooyz telyo say-at jgaa ofohip jowo-a f-ala jft telyo say-at, dc tello-aa say-a jgaa ofohip jowo-a f-ala jft tello-aa say-at.

Tela d4ala.—Jala vya-s. Ooyoo hhs-ec, dh ogap hsayw, ofohipz aallo-0-s. OyoZ ad ho, 5 telyo 3z telyo 8 telyo ty, 8z fya-s telyo jawgela frt dullo-0 ofohip. 3 tello-aa 6z tello-aa 9 tello-aa ty, 9 fya-s tello-aa jawgela dullo-0 ofohip ooyz 98 tello-ta h-  
gyof dc oyo gellor ofaaf.

Tello-aa.	Telyo.
6	3
3	5

9 8 tello-ta.

2. Uyo ofehs-a 1 hote oyw, ftz ofehs-a 4 soyw ftz 2 soyw awa ehi hote hsr sels-a soyw? s-afbae 7.

3. Dfs 4 & dhed, vrbz 3 & dhed, vnz 2 dlvd, awa ehi &? s-afbae 9.

4. Pna sery 2 awf, ovbz so-lyy 3 awf, jshs-oyz so-lyy 3, awa hsr awf sort? s-afbae 8.

5. s-eks 6 ffr dhed 1z dfr dhed, 2z vnz dlvd, awa ehi hsr ffr? s-afbae 9.

6. Mb 3 dhetr gws sayof, 2z ofhle, 1z of-gor, 3z dhelhe, 1z ofrt, awa ehi gws sayof? s-af. 10.

18. How many are 9 and 1? 9 and 3? 9 and 5? 9 and 4? 9 and 6? 9 and 8? 9 and 9? 9 and 2?

19. How many are 11 and 3? 11 and 2? 11 and 4? 11 and 6? 11 and 7? 11 and 9? 11 and 11? 11 and 13? 11 and 12? 11 and 2 and 3? 11 and 4 and 4? 11 and 5 and 5? 12 and 7 and 3? 12 and 6 and 3? 8 and 8 and 4? 9 and 5 and 6? 9 and 8 and 8?

20. For a pound of cheese I paid nine cents, and seven cents for a quart of molasses; how much did I pay for both?

21. If you should pay eleven cents for a picture and for a knife nine cents, how much would both cost?

22. John paid Luke seven cents for marbles and twelve cents for a cake; how much money did he get?

## EXERCISES FOR THE SLATE.

§ 19. 1. James had 63 cents and his father gave him 35 cents; how many cents had he then?

Place the units and the tens of one number under the units and the tens of the other, so that units may stand under units, and tens stand under tens.

SOLUTION.—Write the numbers as in the margin. Draw a line under these figures. Then say, 5 units and 3 units are 8 units; write 8 in the units place under the line. 3 tens and 6 tens are 9 tens; write 9 in the tens place under the line, and you have 98 cents and the work is complete. Answer 98 cents.

3	6	3
3	5	—

2. There is 1 bird on one branch 4 on another and 2 on another; how many birds on all the branches? Ans. 7.

3. There are 4 cows in the lot, 3 in the field and 2 outside; how many cows in all? Ans. 9.

4. Henry bought 2 books, his father gave him 3 books and his teacher 3; how many books did he have? Ans. 8.

5. There are 6 horses in the stable 1 in the lot and 2 outside; how many horses are there? Ans. 9.

6. Lucy had 3 black hens, 2 white hens, 1 speckled and 3 yellow ones, and 1 brown hen; how many hens did she have? Ans. 10.

648 AD 1880-ZI 1401.

(7)	(8)	(9)	(10)
151	234	472	121
212	424	315	516
321	321	102	361

684

§ 20. AAGVIA.—SAWA OFO RWIZ DSA 648 SLOOT, OLYA HGOA SAVA DSA SGAAT; TAZ TEA QYHA OFA A QYHA SGAO HEO D4AT RFLA HSLAOF.

11. AWA TST HSLAOF 231, 114 DC 324?

കലാപ്രഭ 669.

12. SSGAOLA HEBLOF TST HSLAOLA 235 321 DC 142

കലാപ്രഭ 698.

13. AWA TST HSLAOF 11, 22, 505 DC 461?

കലാപ്രഭ 999.

14. LYOLA-RY WWS JSLMAI 104 DS-DA SLEJBRAY W-PZ LCOM 214 DS-DA SLEJBRAY, HAZ JSGAW LCOM 121 DS-DA ILEJBRAY; AWA TST AFLWA HSO?

കലാപ്രഭ 439.

15. YG JSLVA HA DASA SGA4AY 125 DO, OGLAZ 432, KLAZ 311, AWA TALT SGA HSO?

കലാപ്രഭ 868.

§ 21 AGLA OLA 1401 OLOO 10 QAY DC SGRWO DH SGAO HHEO TELA.

[HBE DCGA RE SVI]

1. KT LYOF SVA THF FRT, TEA DY& 246 RE LOF, W-PLAZ 764 RE LOF, KLAZ 918 RE LOF, DTSF DEVCHAOLA T-ST RE LO HSO KT SL LOF.

കലാപ്രഭ 1928.

TELA.	JYQAWO HHEO TELAQA NY
TST RE.	1401 SAAAT, TEA TAYO FR
246	TUCFA; AD TELA 8 DC 4, 12 HSS,
764	6 18 HSS (OLY TAYO) OLY TJWOF
918	HSLAOF HA TOLA, 8Z TAYO,

TST FRT 1928

TELA 1 DC 1 2 HSS, 6Z 8 HSS, 4Z 12 HSS, OLY TOLA) OLY TJWOF TST HSLAOF 1 TOLAAT 2Z TOLA. OLYZ TAGGA 2 TOLA, TOLA OLOO OFHAP, 1Z TOLAAT

Reckon up the following columns of figures.

(7)	(8)	(9)	(10)
151	234	472	121
212	424	315	516
321	321	102	361
<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>
684			

§ 20. PROOF.—Begin at the top and add the columns downward in the same manner as they were added upward. If the two sums are alike the work is presumed to be right.

11. What is the sum of 231, 114 and 324?

Answer 669.

12. Required the sum of 235, 321 and 142.

Answer 698.

13. What is the sum of 11, 22, 505 and 461.

Answer 999.

14. I sold twelve plows for 104 dollars, two wagons for 214 dollars and one chaise for 121 dollars; what is the amount of the whole?

Ans. 439.

15. A drover bought of one man 125 sheep, of another 432, of a third 311; how many did he buy?

Ans. 868.

§ 21. When the sum of any column is equal to or exceeds 10 the operation is as follows:

1. I have three lots of wild land; the first contains 246 acres, the second 764 acres, and the third 918 acres. I wish to know how many acres there are in the three lots.

Answer 1928 acres.

OPERATION.

Acres.

246

764

918

---

Amount 1928

Having arranged the numbers as in the preceding examples, we first add the units; thus, 8 and 4 are 12, and 6 are 18 (units), equal to 1 ten and 8 units. We write the 8 units under the column of units, and carry the 1 ten to the column of tens and add it to them; thus, 1 added to 1 makes 2, and 6 are 8, and 4 are 12 (tens), equal to 1 hundred and 2 tens. We write the two tens under the column of tens, and add the one hundred to the column of hundreds; thus, 1 added to 9 makes 10, and 7 are 17, and 2 are 19 (hundreds),

TAGGA TADAAJY OOLCOO; AD TELLA I 9Z JAKLA 10 HSS, 7Z 17 HSS, 2Z 19 HSS, (OOLY TADAAJY) OOLY TJWOF HSFOLLOF I TASSBF 9Z TADAAJY; 9 TAGGA TADAAJY OOLCOO OFOHJP; DBZ OOLCOO SCFJA HFR OOLY I TASSBF TAGGA HSFOLLOF TASSBF OOLCOO JFRY, OOLYZ AD J4JA TSSOOLCOO AD OHSKAAET 1928.

§ 22. AD J4JAWO HSAOW JPBAAVJA EHR HHEO TJELLA SCFJA AD OOLA TJOLLOF.

TELAJOLLA. — J4LA VAYAS HSO TAYO FRT TEL DSSLB TJP OOLCOO JHVY HSS, HSOZ TADAA FJR 2A OOLCOO JHVY HSS, HSOZ TADAAJY FJR 3A OOLCOO JHVY HSS, HSOZ TASSBF FJR 4A OOLCOO JHVY HSS, DBZ SCLJO OFOJYO.

SQWJ DSA JCU HSO J4LA TAYO OOLCOO-T, OOLYZ HSET DOLA FJR ROL TJP TBRO JHSI; RWJPO AYGA TGOOLYH HSET DOLA JY, DO OOLJP TST JY, TAYOJYO HSFOLLOE OOLCOO AYGA, OYOZ TADAA FJR OZOLY J4LA WFL JLOO TAGGA TJOLLOE.

OOLYJYOZ TJELLA HSO SLOO-T, HSO JSCYZO OHSFOLLOE ELOO, DJO DSHOOLVJA HSFOLLOF OOLCOO-T HSET HSO AYGA HSFOLLOF.

§ 23. WFL TELLA JAGGLOO. — J4LA FJR WF TJAJOLLA OOLY OOLCOO DOLCOO EVJA, DOLCOOZ RWJP SAAJA JSCFJA, HSETZ AYGA.

OOLYZ HSET DOLCOOZ SQWJP VJAYAT JAKVJA SCFJA; TGOZ OOLY AD HSET TJWOF J4JAWO TEL JYHAT, OYO SFO HEO DYOAT RFOLA HSFOLLOAT.

IPBAAVJAE J4LA.

(2)	(2)
TELAJOLLA.	JAGGLOO.
5 2 6	5 2 6
3 1 7	_____
5 2 9	3 1 7
1 3 2	5 2 9
_____	1 3 2
SOL. 1 5 0 4	_____
DOLCOO RWJP HSET	9 7 8
DOLCOO RWJP HSET, DZ DOLCOO	_____
SQWJP JAYJA JAKVJA; OOLY TEL 1 5 0 4	_____
TEL SOLPBAE OFO HSFOLLOF.	_____



equal to 1 thousand and nine hundreds. We write the 9 under the column of hundreds; and there being no other column to be added, we set down the 1 thousand in thousands' place, and find the amount of the several numbers to be 1928.

§ 22. From the preceding examples and illustrations we deduce the following

**RULE.**—Write the numbers so that all the units shall stand in the first column on the right hand; and all tens in the second column; and all the hundreds in the third column; and all the thousands in the fourth column, &c.

Add, upward, all the figures in the column of units, and if the amount be less than ten, write it underneath. But, if the amount be ten or more, write down the unit figure only, and add in the figure denoting the tens with the next column.

Proceed in like manner with each column, until all are added, observing to write down the whole amount of the last column.

§ 23. **SECOND METHOD OF PROOF.**—Separate the numbers to be added into two parts by a horizontal line. Add the numbers below the line, and set down their sum. Then add this sum and the number, or numbers, above the line and if their sum is equal to the first amount, the work is presumed to be right.

EXAMPLES FOR PRACTICE.

(2)  
OPERATION.  
5 2 6  
3 1 7  
5 2 9  
1 3 2  
-----  
Ans. 1 5 0 4

(2)  
PROOF.  
5 2 6  
-----  
3 1 7  
5 2 9  
1 3 2  
-----

Amount below the line, 9 7 8  
Amount below the line added -----  
to that written above the line, 1 5 0 4.

This is the same as the first answer obtained.

	(3)		(3)
	TEMA.		AAGMA.
	2 4 1		2 4 1
	5 3 2		5 3 2
	2 0 7		2 0 7
	9 1 3		9 1 3
കുമാ. 1 8 9 3		DOLLOO RWAP HSET	1 6 5 2
		DOLLOO RWAP HSET, DZ-	
		DOLLOO S-APAP AAQA AKAWO-AP; 1 8 9 3	
		ഓയു TEട കുമാപ്രഭവേ ഴഴുതു ഇഴുതാ.	

	(4)	* (5)	(6)	(7)	(8)	(9)
DS-AP.	TAKP.	TGTR.	TAMC.	TABWA.	TAWB.	
11	47	127	678	789	1769	
23	87	396	971	478	7895	
97	58	787	147	719	7563	
86	83	456	716	937	8765	
217	275	1766	2512	2923	25992	

\* OZA DCCOLA KP SVR. Olay AD TE MA IHSELOLO  
 O-APSOVA OGA OKLA HSELOLOE A-AY TGTRY TGCR  
 DOLA HY GWY KRT. Oഴതുതു തഴുതാ ഇഴുതാതു ഴുരേ ഴു  
 DCCOLA, D OZA DCCOLA, D DQD DCCOLA, D 4M DCCOLA,  
 D APOLA KA DCCOLA, D OWLAR DCCOLA. Olay D4 O-  
 TRLO APOLA AAOLA H-AY.

†(10)	(11)	(12)	‡ (13)	§ (14)
TAKHB.	TALH.	TALOT.	TAKAP.	TALYP.
876	789	123	471	1234
376	567	478	617	3456
715	743	716	871	6544
678	435	478	317	7891
910	678	127	899	8766

† TTR 16 TTR AY TGTR K R KH SVI, AY TTR  
 HB 16 TTR AY TGTR LH SVI.  
 ‡ DS-AP TRH DOLA DS-AP JEGOLA HY DLO SVI.  
 § DEVET 360 THLATTLAETRO, Olay AY TGTR  
 K R YP SVI.

(3) OPERATION.	(3) PROOF.
2 4 1	2 4 1
5 3 2	—
2 0 7	5 3 2
9 1 3	2 0 7
—	9 1 3
Ans. 1 8 9 3	—

Amount below the line, 1 6 5 2  
 Amount below the line added ———  
 to that written above the line, 1 8 9 3

This is the same as the first answer obtained.

(4) Dollars.	* (5) Miles.	(6) Pounds.	(7) Rods.	(8) Inches.	(9) Feet.
11	47	127	678	789	1769
23	87	396	971	478	7895
97	58	787	147	719	7563
86	83	456	716	937	8765
—	—	—	—	—	—
217	275	1766	2512	2923	25992

\* [NOTE TO TEACHERS.—In Cherokee the word measure is used for acre, mile, yard, bushel, gallon, and hour. The English word for mile is here used, and this note is to explain it to those speaking Cherokee.

† (10) Ounces.	(11) Drams.	(12) Cents.	‡ (13) Eagles.	§ (14) Degrees.
876	789	123	471	1234
376	567	478	617	3456
715	743	716	871	6544
678	435	478	317	7891
910	678	127	899	8766
—	—	—	—	—

† The 16th part of a pound is called an OUNCE. The 16th part of an ounce is called a DRAM.

‡ The gold coin which is worth ten dollars is called an Eagle.

§ Circles are divided into 360 equal parts; one of these parts is called a degree.

(15)	(16)	(17)	(18)
ТӘУЫЛ.	ТӘУЫЛӘЛ.	ТҒҒӨҒӨ.	ТӘУӨЛӘЛ.
78956	71678	71123	98765
37667	12345	45678	12345
12345	67890	34680	67111
67890	34567	56777	33333
78999	89012	67812	71345
13579	78917	71444	99999

(19)	(20)	(21)	(22)
ТӘ.	ТӘЛӘТ.	ТӘӨ-Ү.	ТҮҮЛӘТ.
17875897	789567	37	30176
7167512	7613	1378956	31
876567	123123	700714	86.1
98765	70071	367	11
7896	475	76117	9911
789	1069	4611779	89120
78	374176	9171	710
7	761	131765	4325

23. Тәу 1001, 76, 10078, 15, 8761, 7, дө 1678.  
 Тәуәләл 21616.
24. Тәу 49, 761, 3756, 8, 150, 761761, дө 18.  
 Тәуәләл 766503.
25. Дәһәләл һәһәл һәһә, 3717, 8, 7, 10001, 58. 18,  
 дө 5. Тәуәләл 13814.
26. Тәу 19, 181, 5, 897156, 81, 800, 71512.  
 Тәуәләл 969754.
27. Аһә тәһәһәһәһә 999, 8081, 9, 1567, 88, 91,  
 7, дө 878? Тәуәләл 11720.
28. Тәу 71, 18765, 9111, 1471, 678, 9, 1446, 71.  
 Тәуәләл 31622.
29. Тәу 51, 1, 7671, 89, 871787, 61, дө 70001.  
 Тәуәләл 949661.
30. Аһә һәһә 71, 8956, 1, 785, 587, 76178.  
 Тәуәләл 86578.
31. Тәу 9999, 8008, 8, 81, 4777, 516785.  
 Тәуәләл 539658.

(15)	(16)	(17)	(18)
Feet.	Inches.	Hours.	Minutes.
78956	71678	71123	98765
37667	12345	45678	12345
12345	67890	34680	67111
67890	34567	56777	33333
78999	89012	67812	71345
13579	78917	71444	99999
<hr/>	<hr/>	<hr/>	<hr/>
(19)	(20)	(21)	(22)
Days.	Years.	Months.	Hogsheads.
17875897	789567	37	30176
7167512	7613	1378956	31
876567	123123	700714	8601
98765	70071	367	11
7896	475	76117	9911
789	1069	4611779	89120
78	374176	9171	710
7	761	131765	4325
<hr/>	<hr/>	<hr/>	<hr/>

23. Add 1001, 76, 10078, 15, 8761, 7, and 1678.  
 Ans. 21616.
24. Add 49, 761, 3756, 8, 150, 761761, and 18.  
 Ans. 766503.
25. Required the sum of 3717, 8, 7, 10001, 58, 18, and 5.  
 Ans. 13814.
26. Add 19, 181, 5, 897156, 81, 800, and 71512.  
 Ans. 969754.
27. What is the sum of 999, 8081, 9, 1567, 88, 91, 7, and 878?  
 Ans. 11720.
28. Add 71, 18765, 9111, 1471, 678, 9, 1446, and 71.  
 Ans. 31622.
29. Add 51, 17671, 89, 871787, 61, and 70001.  
 Ans. 949661.
30. What is the sum of 71, 8956, 1, 785, 587, and 76178?  
 Ans. 86578.
31. Add 9999, 8008, 8, 81, 4777, and 516785.  
 Ans. 539658.

32. டிசு 5, 7, 8911, 467, 47895, டிசு 87.  
செய்தல் 57372.
33. டிசு 123456, 71, 8005, 21, 7 6787.  
செய்தல். 84834).
34. டிசு 47, 911111, 717, 81, 8 701 டிசு 56.  
செய்தல் 1000779.
35. அலா ஹ் 71, 8899, 4, 7111, 678679.  
செய்தல் 694764.
36. டிசு 81, 879, 41, 76789, 42, 1, டிசு 78 67.  
செய்தல் 156800.
37. டிசு 917658, 75, 876789, 46, 8222.  
செய்தல் 1802790.
38. டிசு 91, 76756895, 76, 14, 3, டிசு 76378.  
செய்தல் 76833457.
39. டிசு 10, 100, 1000, 10000, 100000 டிசு 1000000.  
செய்தல் 1111110.
40. அலா தீத ஹ் 9, 99, 99, 1111, 1000, டிசு 5?  
செய்தல் 9323.
41. டிசு 41, 7651, 7678956, 43, 15, டிசு 6780.  
செய்தல் 7693486
42. டிசு 1234, 7891, 3146751, 27, 9, டிசு 5.  
செய்தல் 3155917.
43. அலா ஹ் 19, 91, 1, 1, 1478, 1007, டிசு 46?  
செய்தல் 2643.
44. டிசு, 0-யித சீதலா வு, சீதலா ஹ், லாலித அல-  
ய, டிசு கித லாலா சீயு. செய்தல் 10 9.
45. டிசு அலலா வு தலசீ சீயுயித லாலா அலு,  
சீயுயித அலு, கலலா வு, லாலித சீதலா தலசீ ஹ்,  
0-யித சீயு. செய்தல் 227931.
46. டிசு அலலா வு தலசீ சீயுயித ஹ், கி தலசீ  
சீதலா ஹ், 0-யித சீதலா ஹ், வலலா ஹ், கி தலசீ  
ஹ். செய்தல் 63315.
47. அலா தீத ஹ் 14லா, சீயுயித தலசீ சீ-  
யுயித ஹ், சீத தலசீ தல, ஹ் தலலல-  
லு வலலித தல-  
சீ சீயுயித வு, 0-லா சீயு தலசீ வலலித சீதலா ஹ்,  
சீயு தலசீ 0-லா சீயு, 0-யித ஹ், டிசு தல.  
செய்தல் 2373544.

32. Add 5, 7, 8911, 467, 47895, and 87.  
Ans. 57372.
33. Add 123456, 71, 8005, 21, and 716787.  
Ans. 848340.
34. Add 47, 911111, 717, 81, 88767, and 56.  
Ans. 1000779.
35. What is the sum of 71, 8899, 4, 7111, and 678679?  
Ans. 694764.
36. Add 81, 879, 41, 76789, 42, 1, and 78967.  
Ans. 156800.
37. Add 917658, 75, 876789, 46, and 8222.  
Ans. 1802790.
38. Add 91, 76756895, 76, 14, 3, and 76378.  
Ans. 76833457.
39. Add 10, 100, 1000, 10000, 100000, and 1000000.  
Ans. 1111110.
40. What is the sum of 9, 99, 99, 1111, 8000, and 5?  
Ans. 9323.
41. Add 41, 7651, 7678956, 43, 15, and 6780.  
Ans. 7693486.
42. Add 1234, 7891, 3146751, 27, 9, and 5.  
Ans. 3155917.
43. What is the sum of 19, 91, 1, 1, 1478, 1007, and 46?  
Ans. 2643.
44. Add four hundred seventy-six, seventy-one, one hundred five, and three hundred eighty-seven.  
Ans. 1039.
45. Add fifty-six thousand seven hundred eighty-five, seven hundred five, thirty-six, one hundred seventy thousand and one, and four hundred seven.  
Ans. 227934.
46. Add fifty-six thousand seven hundred eleven, three thousand seventy one, four hundred seventy-one, sixty-one, and three thousand and one. Ans. 63315.
47. What is the sum of the following numbers: seven hundred thousand seven hundred one, seventeen thousand nine, one million six hundred thousand seven hundred six, forty-seven thousand six hundred seventy-one, seven thousand forty seven, four hundred one, and nine?  
Ans. 2373544.

48. 73 DS-9A DTJB&Y GLE, 15 DS-9A DTJB&Y DVW0-  
A, 119 DS-9A DTJB&Y FFR, 376 DS-9A DTJB&Y LTEM  
LISGAW, 7689 DS-9A DTJB&Y FRK8; AWA TST SPECWAL  
H80? കിഴക്കേ 8272.

49. D0L0&Y 8-9E 60RT, 15 8-9F T90&A D0L0&AT,  
73 R8W D0L0&AT, 29 DR0-0 D0L0&AT, 14 YW& D0L0-  
&AT, AWA H8I 8-98 0& 8-9ET? കിഴക്കേ 131.

50. G8 L88W 375 H8L&CY H&0& FRT, L80-GZ 315  
H8L&CY H&0& FRT, 8L8Z 96 &L&CY, 0000Z 87 &L&-  
Y, AWA &L&T 0&Y G8? കിഴക്കേ 1563.

51. YG D&8& 9F& 0&RY 1728 DS-9A 0&B&Y, 0& 00-  
L0-RY 375 DS-9A 0&L&TWY; AWA TST SPECWAL 00L0-?  
കിഴക്കേ 2103 DS-9A.

52. 8ZL&Y A&Y JZ&0 L&90 8&4T, T&8 0&R& 376  
DS-9A 0&BJ&T, W&LZ 198 DS-9A, KTLZ 896 DS-9A, 0-YLZ  
691 DS-9A, A&YLZ 96 DS-9A. AWA TST 0&JB& H80?  
കിഴക്കേ 2257 DS-9A.

53. 8ZL&Y 8&RY A&Y JWC- JRVH L&0& G&8& T&0&A  
375 DS-9A SJ&B&Y, 00L0-Z 25 0&L&TWY H&0& F&R JRVH;  
AWA TST SPECWAL 00L0-? കിഴക്കേ 500 DS-9A.

54. G& VR 8& 0&T 789 DS-9A J&E&G&L, DS-9Z. L&H&T-  
H&L&Y 8&VW&0 0Z&0&Y A&8& 8&D 369 DS-9A J&E&G&L, DS-  
9Z F&R 8& 850 DS-9A.

AWA TST J&E&G&L 0&Y D&8&0? കിഴക്കേ. 9115 DS-9A.

55. DS&8&0&A H&8&0&A 0&H&I 8&0 D&L& Y&8&Y&0&8& 0&8&Y  
8&F&L&RT, 1850 0&8&Y&8&L&R F&8&4&A 0&H&8 583.169 0&H&Y, 9&0-  
H&8 317,967, 8&4&8&4&L 994,514, G&L&8 D&8&8&F 147,545, 8&L-  
L&8&L 370,792, 8&8&L&8 314,120.

കിഴക്കേ 2,728,116.

56. DS&G&0&A 0&H&I 8&0 D&L& D&8&F 0&8&Y&Y 8&F&RT 8&9&8&0 D&C&8&I  
E&G&8&0&A, 1850 0&8&Y&8&L&R AD H&L&H&L&4T 9&0&8 3,097,394,  
9&0&8 489,555, 0&Y&L&8&8 2,311,786, D&T&0&Y&8 91,532, 0&F-  
8 583,034, 8&9&8&0&Z D&C&8&IT 51,687.

കിഴക്കേ 6,624,988.



48. Gave 73 dollars for a watch, 15 dollars for a cane, 119 dollars for a horse, 376 dollars for a carriage, and 7889 dollars for a house; how much did they all cost?

Ans. 8272 dollars.

49. In an orchard 15 trees bear plums, 73 trees bear apples, 29 trees bear pears, and 14 trees bear cherries; how many trees are there in the orchard?

Ans. 131 trees.

50. The hind quarters of an ox weighed 375 pounds each, the fore quarters 315 pounds each; the hide weighed 96 pounds, and the tallow 87 pounds. What was the whole weight of the ox?

Ans. 1563 pounds.

51. Bought a farm for 1728 dollars, and sold it so as to gain 375 dollars; how much was it sold for?

Ans. 2103 dollars.

52. A merchant bought five pieces of cloth. For the first he gave 376 dollars, for the second 198 dollars, for the third 896 dollars, for the fourth 691 dollars, and for the fifth 96 dollars. How much did he give for the whole?

Ans. 2257 dollars.

53. A merchant bought five hogsheads of molasses for 375 dollars, and sold it so as to gain 25 dollars on each hogshead; for how much did he sell it?

Ans. 500 dollars.

54. John Smith's farm is worth 7896 dollars; he has bank stock valued at 369 dollars, and he has in cash 850 dollars. How much is he worth?

Ans. 9115 dollars.

55. Required the number of inhabitants in the New England States. By the census of 1850 there were in Maine, 583,169; in New Hampshire, 317,976; in Massachusetts, 994,514; in Rhode Island, 147,545; in Connecticut, 370,792; and in Vermont, 314,120.

Ans. 2,728,116.

56. Required the number of inhabitants in the Middle States, including the district of Columbia. In 1850 there were in New York, 3,097,394; in New Jersey, 489,555; in Pennsylvania, 2,311,786; in Delaware, 91,532; in Maryland, 583,034; and in the District of Columbia, 51,687.

Ans. 6,624,988.

57. ДСГЛААА ОИ ВО ОСӨӨ АССУ ФРАЛРТ. 1850 ОСЛА-  
 ВУЛР ГИИИ АССУ ДЛР 1,421,661, КАСӨ ОВРТ 859,039,  
 КАСӨ ОСӨӨТ 668,507, ГИИ 906,185, АИИЗР 87,445.  
 КЛАРВАӨ 3,9 2,837.

58. ДСГЛААА ОИ ВО ДЛА ОСӨӨ ОФРЕЗ ТЛР ДАА  
 АССУ ФРАЛРТ. 1850 ОСЛАВУЛР ДЛР 771,623, ОИУ,  
 АСУР 606,526, ОИУ, МТӨӨЗ 517,762, ОЛУ 212,592,  
 САӨРЗ 209,897, ВӨБЗ 1,002,917.

КЛАРВАӨ 3,321,317.

59. ДСГЛААА ТАИТ ВО ДЛА ОВР ОФРЕЗ ДАА АССУ  
 ФРАЛРТ ДА АССУ ТУРАӨТ; 18 О СЛАВУЛР КСА ОУ  
 682,044, ОИРТ, КЛУЗ 982,405, РАИИ 1,980,329, Т-  
 ИАӨ 988,416, ДИӨӨТКӨӨ 851,470, ИИИ 397,654,  
 ОААИИ 305,391, ДА 192,214, КРАИ 92,597, АССУЗ  
 АУРА ФРАЛРТ 92,298.

КЛАРВАӨ 6,564,818.

57. Required the number of inhabitants in the Southern States. In 1850 there were in Virginia, 1,421,661; in North Carolina, 869,039; in South Carolina, 668,507; in Georgia, 906,185; and in Florida, 87,445.

Ans. 3,952,837.

58. Required the number of inhabitants in the Southwestern States. In 1850 there were in Alabama, 771,623; in Mississippi, 606,526; in Louisiana, 517,762; in Texas, 212,592; in Arkansas, 209,897; and in Tennessee, 1,002,917.

Ans. 3,321,317.

59. Required the number of inhabitants in the Northwestern States and Territories. In 1850 there were in Missouri, 682,044; in Kentucky, 982,405; in Ohio, 1,980,329; in Indiana, 988,416; in Illinois, 851,470; in Michigan, 397,654; in Wisconsin, 305,391; in Iowa, 192,214; in California, 92,597; and in the Territories, 92,298.

Ans. 6,564,818.

അടവുകൾ.

9 24. JSAV DSGFAADIA WP JAQA ER TST SETHIT,  
 OAY TADLA P4AT AGADIA SVI. SCPLA ER JGAI DH-  
 IP DEVVOA HSFADIA.

1. Gh 7 ahk sc, OVZ 4 sc; AWA TST OLAOLA OAF  
 sc gh?

EHFR TELA - TES ER DOLA HSFADIA TST ER OAY  
 4 sc shadwo 7 HSFADIAET, SCPLA ER EWOA TVVDFAD  
 4 DC 3, 7 HSFADIAET; OAYZ HSFADIA, 4 ahk shagor  
 7 ahk sc, 3 ahk telad OAYZ gh ahk sc 3 OLAOLA,  
 OV OLAOLA.

അടവുകൾ OEEF SSO-ZST.

1 shagor 1 dc 0 veyb	2 shagor 2 sc 0 veyb
1 " 2 sc 1 ayb	2 " 3 " 1 ayb
1 " 3 sc 2 ayb	2 " 4 " 2 ayb
1 " 4 " 3 "	2 " 5 " 3 "
1 " 5 " 4 "	2 " 6 " 4 "
1 " 6 " 5 "	2 " 7 " 5 "
1 " 7 " 6 "	2 " 8 " 6 "
1 " 8 " 7 "	2 " 9 " 7 "
1 " 9 " 8 "	2 " 10 " 8 "
1 " 10 " 9 "	2 " 11 " 9 "
1 " 11 " 10 "	2 " 12 " 10 "
1 " 12 " 11 "	2 " 13 " 11 "
1 " 13 " 12 "	2 " 14 " 12 "
3 shagor 3 sc 0 veyb	4 shagor 4 sc 0 veyb
3 " 4 " 1 ayb	4 " 5 " 1 ayb
3 " 5 " 2 ayb	4 " 6 " 2 ayb
3 " 6 " 3 "	4 " 7 " 3 "
3 " 7 " 4 "	4 " 8 " 4 "
3 " 8 " 5 "	4 " 9 " 5 "
3 " 9 " 6 "	4 " 10 " 6 "
3 " 10 " 7 "	4 " 11 " 7 "
3 " 11 " 8 "	4 " 12 " 8 "
3 " 12 " 9 "	4 " 13 " 9 "
3 " 13 " 10 "	4 " 14 " 10 "
3 " 14 " 11 "	4 " 15 " 11 "
3 " 15 " 12 "	4 " 16 " 12 "

## SUBTRACTION.

§ 24. When it is required to find the difference between two numbers of the same kind, the process is called Subtraction. The operation is the reverse of addition.

1. John has 7 oranges, and his sister but four; how many more has John than his sister?

ILLUSTRATION.— We first inquire what number added to four will make seven. From addition we learn that 4 and 3 are 7; consequently, if four oranges be taken from 7 oranges, 3 oranges will remain. Hence John has 3 oranges more than his sister.

## SUBTRACTION TABLE.

1 from 1	leaves 0	2 from 2	leaves 0
1 " 2	" 1	2 " 3	" 1
1 " 3	" 2	2 " 4	" 2
1 " 4	" 3	2 " 5	" 3
1 " 5	" 4	2 " 6	" 4
1 " 6	" 5	2 " 7	" 5
1 " 7	" 6	2 " 8	" 6
1 " 8	" 7	2 " 9	" 7
1 " 9	" 8	2 " 10	" 8
1 " 10	" 9	2 " 11	" 9
1 " 11	" 10	2 " 12	" 10
1 " 12	" 11	2 " 13	" 11
1 " 13	" 12	2 " 14	" 12
3 from 3	leaves 0	4 from 4	leaves 0
3 " 4	" 1	4 " 5	" 1
3 " 5	" 2	4 " 6	" 2
3 " 6	" 3	4 " 7	" 3
3 " 7	" 4	4 " 8	" 4
3 " 8	" 5	4 " 9	" 5
3 " 9	" 6	4 " 10	" 6
3 " 10	" 7	4 " 11	" 7
3 " 11	" 8	4 " 12	" 8
3 " 12	" 9	4 " 13	" 9
3 " 13	" 10	4 " 14	" 10
3 " 14	" 11	4 " 15	" 11
3 " 15	" 12	4 " 16	" 12

5	AGGOL	5	0	BEALB
5	"	6	1	ALB
5	"	7	2	ALB
5	"	8	3	"
5	"	9	4	"
5	"	10	5	"
5	"	11	6	"
5	"	12	7	"
5	"	13	8	"
5	"	14	9	"
5	"	15	10	"
5	"	16	11	"
5	"	17	12	"

6	AGGOL	6	0	BEALB
6	"	7	1	ALB
6	"	8	2	ALB
6	"	9	3	"
6	"	10	4	"
6	"	11	5	"
6	"	12	6	"
6	"	13	7	"
6	"	14	8	"
6	"	15	9	"
6	"	16	10	"
6	"	17	11	"
6	"	18	12	"

7	AGGOL	7	0	BEALB
7	"	8	1	ALB
7	"	9	2	ALB
7	"	10	3	"
7	"	11	4	"
7	"	12	5	"
7	"	13	6	"
7	"	14	7	"
7	"	15	8	"
7	"	16	9	"
7	"	17	10	"
7	"	18	11	"
7	"	19	12	"

8	AGGOL	8	0	BEALB
8	"	9	1	ALB
8	"	10	2	ALB
8	"	11	3	"
8	"	12	4	"
8	"	13	5	"
8	"	14	6	"
8	"	15	7	"
8	"	16	8	"
8	"	17	9	"
8	"	18	10	"
8	"	19	11	"
8	"	20	12	"

9	AGGOL	9	0	BEALB
9	"	10	1	ALB
9	"	11	2	ALB
9	"	12	3	"
9	"	13	4	"
9	"	14	5	"
9	"	15	6	"
9	"	16	7	"
9	"	17	8	"
9	"	18	9	"
9	"	19	10	"
9	"	20	11	"
9	"	21	12	"

10	AGGOL	10	0	BEALB
10	"	11	1	ALB
10	"	12	2	ALB
10	"	13	3	"
10	"	14	4	"
10	"	15	5	"
10	"	16	6	"
10	"	17	7	"
10	"	18	8	"
10	"	19	9	"
10	"	20	10	"
10	"	21	11	"
10	"	22	12	"

5 from 5 leaves 0	6 from 6 leaves 0
5 " 6 " 1	6 " 7 " 1
5 " 7 " 2	6 " 8 " 2
5 " 8 " 3	6 " 9 " 3
5 " 9 " 4	6 " 10 " 4
5 " 10 " 5	6 " 11 " 5
5 " 11 " 6	6 " 12 " 6
5 " 12 " 7	6 " 13 " 7
5 " 13 " 8	6 " 14 " 8
5 " 14 " 9	6 " 15 " 9
5 " 15 " 10	6 " 16 " 10
5 " 16 " 11	6 " 17 " 11
5 " 17 " 12	6 " 18 " 12
7 from 7 leaves 0	8 from 8 leaves 0
7 " 8 " 1	8 " 9 " 1
7 " 9 " 2	8 " 10 " 2
7 " 10 " 3	8 " 11 " 3
7 " 11 " 4	8 " 12 " 4
7 " 12 " 5	8 " 13 " 5
7 " 13 " 6	8 " 14 " 6
7 " 14 " 7	8 " 15 " 7
7 " 15 " 8	8 " 16 " 8
7 " 16 " 9	8 " 17 " 9
7 " 17 " 10	8 " 18 " 10
7 " 18 " 11	8 " 19 " 11
7 " 19 " 12	8 " 20 " 12
9 from 9 leaves 0	10 from 10 leaves 0
9 " 10 " 1	10 " 11 " 1
9 " 11 " 2	10 " 12 " 2
9 " 12 " 3	10 " 13 " 3
9 " 13 " 4	10 " 14 " 4
9 " 14 " 5	10 " 15 " 5
9 " 15 " 6	10 " 16 " 6
9 " 16 " 7	10 " 17 " 7
9 " 17 " 8	10 " 18 " 8
9 " 18 " 9	10 " 19 " 9
9 " 19 " 10	10 " 20 " 10
9 " 20 " 11	10 " 21 " 11
9 " 21 " 12	10 " 22 " 12

11	മാറ്റർ	11	6	0	വേല	12	മാറ്റർ	12	6	0	വേല
11	“	12	“	1	ഓല	12	“	13	“	1	ഓല
11	“	13	“	2	ഓല	12	“	14	“	2	ഓല
11	“	14	“	3	“	12	“	15	“	3	“
11	“	15	“	4	“	12	“	16	“	4	“
11	“	16	“	5	“	12	“	17	“	5	“
11	“	17	“	6	“	12	“	18	“	6	“
11	“	18	“	7	“	12	“	19	“	7	“
11	“	19	“	8	“	12	“	20	“	8	“
11	“	20	“	9	“	12	“	21	“	9	“
11	“	21	“	10	“	12	“	22	“	10	“
11	“	22	“	11	“	12	“	23	“	11	“
11	“	23	“	12	“	12	“	24	“	12	“

2. ൫൩ ടൗ ടൗ ക്ക, ൮൪ ൫൩ ടൗ; ൮൮ ട്ട ഏ-  
ട്?

3. ൮൪ ടൗ ൮൪ ൮൪, ൫൩ ടൗ ൮൪; ൮൮ ട്ട  
ട്?

4. ൮൪ ൪൪ ൪൪ ൪൪ ൪൪, ൮൪ ൪൪; ൮൮ ട്ട  
ട്?

5. ൪൪ ൮൪ ൪൪ ൪൪ ൪൪, ൪൪ ൪൪ ൪൪; ൮൮ ട്ട  
ട്?

6. ൪൪ ൪൪ ൪൪ ൪൪, ൪൪ ൪൪ ൪൪; ൪൪ ൪൪ ൪൪  
ട്ട ട്ട ട്ട?

7. ൪൪ ൪൪ ൪൪ ൪൪ ൪൪, ൪൪ ൪൪ ൪൪ ൪൪; ൪൪  
ട്ട ൪൪ ട്ട ൪൪ ൪൪ ൪൪, ൪൪ ൪൪ ൪൪ ൪൪?

8. ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪  
ട്ട ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪ ൪൪  
ട്ട?

9. ൪൪ ൪൪ ൪൪ ൪൪ 4, 2൪ ൪൪? 4, 1൪ ൪൪? 4,  
4൪ ൪൪?

10. ൪൪ ൪൪ 4, 3൪ ൪൪? 5, 1൪ ൪൪? 5, 5൪ ൪൪?

11. ൪൪ ൪൪ 5, 2൪ ൪൪? 5, 3൪ ൪൪? 5, 4൪ ൪൪?

12. ൪൪ ൪൪ 6, 1൪ ൪൪? 6, 2൪ ൪൪? 6, 4൪ ൪൪?

13. ൪൪ ൪൪ 7, 2൪ ൪൪? 7, 3൪ ൪൪? 7, 4൪ ൪൪?  
7, 6൪ ൪൪?

14. ൪൪ ൪൪ 8, 6൪ ൪൪? 8, 5൪ ൪൪? 8, 2൪ ൪൪?  
8, 4൪ ൪൪?

15. ൪൪ ൪൪ 9, 2൪ ൪൪? 9, 4൪ ൪൪? 9, 5൪ ൪൪?  
9, 7൪ ൪൪?



11	from	11	leaves	0	12	from	12	leaves	0
11	"	12	"	1	12	"	13	"	1
11	"	13	"	2	12	"	14	"	2
11	"	14	"	3	12	"	15	"	3
11	"	15	"	4	12	"	16	"	4
11	"	16	"	5	12	"	17	"	5
11	"	17	"	6	12	"	18	"	6
11	"	18	"	7	12	"	19	"	7
11	"	19	"	8	12	"	20	"	8
11	"	20	"	9	12	"	21	"	9
11	"	21	"	10	12	"	22	"	10
11	"	22	"	11	12	"	23	"	11
11	"	23	"	12	12	"	24	"	12

2. Thomas had five oranges, and gave two of them to John; how many had he left?

3. Peter had six marbles, and gave two of them to Samuel; how many had he left?

4. Lydia had four cakes; having lost one how many had she left?

5. Daniel, having eight cents, gives three to Mary; how many has he left?

6. Benjamin had ten nuts; he gave four to Jane and three to Emily; how many had he left?

7. Moses gives eleven oranges to John, and eight to Enoch; how many more has John than Enoch?

8. Paid seven dollars for a pair of boots, and two dollars for shoes; how much did the boots cost more than the shoes?

9. How many are 4 less 2? 4 less 1? 4 less 4?

10. How many are 4 less 3? 5 less 1? 5 less 5?

11. How many are 5 less 2? 5 less 3? 5 less 4?

12. How many are 6 less 1? 6 less 2? 6 less 4?

13. How many are 7 less 2? 7 less 3? 7 less 4? 7 less 6?

14. How many are 8 less 6? 8 less 5? 8 less 2? 8 less 4?

15. How many are 9 less 2? 9 less 4? 9 less 5? 9 less 7?



16. How many are 10 less 8? 10 less 7? 10 less 5? 10 less 3? 10 less 1?

17. How many are 11 less 9? 11 less 7? 11 less 5? 11 less 3? 11 less 4?

18. How many are 12 less 10? 12 less 8? 12 less 6? 12 less 4? 12 less 7?

19. How many are 13 less 11? 13 less 10? 13 less 7? 13 less 9? 13 less 5?

20. How many are 14 less 11? 14 less 9? 14 less 8? 14 less 6? 14 less 7? 14 less 3?

21. How many are 15 less 2? 15 less 4? 15 less 5? 15 less 7? 15 less 9? 15 less 13?

22. How many are 16 less 3? 16 less 4? 16 less 7? 16 less 9? 16 less 11? 16 less 15?

23. How many are 17 less 1? 17 less 3? 17 less 5? 17 less 7? 17 less 8? 17 less 12?

24. How many are 18 less 2? 18 less 4? 18 less 7? 18 less 8? 18 less 10? 18 less 12?

25. How many are 19 less 1? 19 less 3? 19 less 5? 19 less 7? 19 less 9? 19 less 16?

26. How many are 20 less 5? 20 less 8? 20 less 9? 20 less 12? 20 less 15? 20 less 19?

27. Bought a horse for 60 dollars, and sold him for 90 dollars; how much did I gain?

ILLUSTRATION.—60 equals 6 tens, and 90 equals 9 tens; 6 tens from 9 tens leave 3 tens, or 30. Therefore I gained 30 dollars.

28. Sold a wagon for 70 dollars which cost me 100 dollars; how much did I lose?

29. John travels 30 miles a day, and Samuel 90 miles; what is the difference?

30. I have 100 dollars, and after I shall have given 20 to Benjamin, and paid a debt of 30 dollars to John Smith, how many dollars have I left?

31. Gh VR, ah RA, say 170 Dg-aa e-m-z slay tek RA o-yh d-fb Rhrwh jvtm 40 Dg-aa, ahz RA o-yh d-fb Of jvtm 50 Dg-aa, TEAZ RA o-yh Daksath IPh jvtm 30, ahz RA o-yh Daksath Of jvtm 20 Dg-aa; e-m-z Dsf o-jb.i f-r 20 Dg-aa slt awa Dg-aa e-g-ast?

§ 26. Aggolak f-rt e-m j-ala k-o-g-l-o j-ala Aggolak f-rt, e-m t-st sl-eti D-g-f-a-l-a o-e-g-t.

[MINUEND,] SVI e-m k-o d-y-r-w-j-l-a f-rt.

[SUBTRAHEND,] SVI e-m t-st Aggolak h-s-f-l-a-l-e-t.

T-st sl-eti-t, D-o t-st d-f-z-a-k-l-e k-s-o, e-m t-st G-o-p-z-a-k-l-e f-rt, e-m j-agg-o-t-o-a h-f-rt.

LABBY 1. j-ala o-g-l-o j-ala k-o t-j-w o-h-s-r h-f-t yw s-aggolak f-rt.

LABBY 2. W-f j-ala j-ala f-rt t-st f-r h-s-o-l-o-t-t, o-wh-i f-r e-m d-y-r-w-j-l-a f-rt.

§ 27. Aggolak D-g-f-a-l-a o-s-g-a-s D-l-t-o-w o-l-t-w D-l-o-z-t ad t-g-l-a —, e-m d-y-r-w-s-a s-s. Adz q-l-v s-s-e-t e-m k-h-l-p j-ay-a Aggolak h-s-f-l-a-l-e t-e-k-l-p j-ay-a k-t o-z-k-l-y f-rt ad h-h-e-o-6 2=4, ad q-l-a d-a-p-s-l-s 6 k-o 2 d-a-w-s-a, t-j-w-o-h-s-f-l-a-l-o-t 4.

§ 28. H-s-o j-ala e-m-o-t s-a-y-a Aggolak f-rt j-h-r-r h-f-rt, o-c h-h-s-m-t d-y-r-w-j-l-a j-f-r j-g-a-l s-q-w-l-p v-j-ay-a j-ala, ad t-e-l-l-i f-rt.

1. 245 j-aggolak k-h-e-l-a 468 k-t, t-st-z sl-eti d-g-o-l-a s-y. S-l-a-r. 223.

AD TELI. Y-h-r-r f-r o-h-l-p t-v-s-l-a-t, d-y-r-w-j-l-a f-rt 4 6 8 o-wh-l-z s-q-w-l-p t-ay-m j-ay-g-l Aggolak f-rt 2 4 5 o-h-l-p t-ay-m s-a-y-a-t, t-ay-l-a — j-ay-g-l o-h-l-p t-ay-l-a s-a-y-a-t, G-o-p-z-a-k-l-e-t 2 2 3 D-o G-k-f-r e-m-y-k-m t-e-l-l-i, o-h-l-p-z D-l-o-z-l-i. O-m-y-z D-s-l-b t-l-p k-g-h-l-a-t; D-o ad z-h-s-l-a-t, 5 t-ay-m k-l-agg-r 8 t-ay-m k-t, 3 t-ay-m D-o-f-a-k-l-s, 3 a-y-g-l t-ay-m j-o-v-l j-f-r r-w-l-p; e-m D-o 4 t-ay-l-a k-l-agg-r 6 t-ay-l-a k-t 2 t-ay-l-a D-o-p-z-a-k-l-s, e-m-y-z 2 a-y-g-l t-ay-l-a o-o-l-i j-f-r r-w-l-p; 2z t-ay-l-a-s-t k-l-agg-r 4 t-ay-l-a-s-t k-t 2 t-ay-l-a-s-t D-o-p-z-a-k-l-s, e-m-y-z ad t-v-s-l-a t-ay-l-a-s-t o-o-l-i r-w-l-p f-rt; e-m-y-z D-g-f-a-l-a h-s-f-l-a-l-o-t t-st s-l-eti-t 223 h-s-f-l-a-l-e-t.

§ 29. T-e-k t-e-l-l-i a-g-g-l-a-y — G-l-a-k-l-e-t Aggolak f-r w-k-l-s a-c-h o-h-s-h-a-k-z d-y-r-w-j-l-a j-ay-a t-l-s-s-t h-s-f-l-a-l-o-l-i t-g-z s-g-a-s h-c-l-a-l-i s-g-a-o-l-l-a-y-t.

31. John Smith, jr., had 170 dollars; he gave his oldest daughter, Angeline, 40 dollars, his youngest daughter, Mary, 50 dollars, his oldest son James 30, and his youngest son, William, 20 dollars; he also paid 20 dollars for his taxes; how many dollars had he remaining?

§ 26. SUBTRACTION is the taking of one number from another to find the difference.

The MINUEND is the number to be diminished.

The SUBTRAHEND is the number to be subtracted.

The DIFFERENCE or REMAINDER, is the result, or the number left after Subtraction.

NOTE 1.—One number can be subtracted from another only when they are both of the same kind.

NOTE 2.—When the two given numbers are unequal, the greater number is the minuend.

§ 27. The SIGN OF SUBTRACTION is a short horizontal line, thus—, signifying *minus* or *less*. It indicates that the number *following* is to be taken from the one that *precedes* it. The expression  $6-2=4$  is read, 6 minus, or less, 2 is equal to 4.

§ 28. When each figure in the subtrahend is less than the figure above it in the minuend, proceed thus:

1. Let it be required to take 245 from 468, and to find their difference. Ans. 223.

OPERATION.	We place the less number un-
Minuend    4 6 8	der the greater, units under units,
Subtrahend 2 4 5	tens under tens, &c., and draw a
—	line below them. We then be-
Remainder 2 2 3	gin at the right, and say, 5 units
	from 8 units leave 3 units, and

write 3 in the units' place below; then 4 tens from 6 tens leave 2 tens, and write 2 in the tens' place below; and 2 hundreds from 4 hundreds leave 2 hundreds, which we write in hundreds' place below; and thus find the difference to be 223.

§ 29. FIRST METHOD OF PROOF.—Add the remainder and the subtrahend together, and their sum will be equal to the minuend, if the work is right.

ഇരട്ടക്കഥകളെ ചില.

	(2)	(2)
	തെലി ചില.	അടക്കം.
DUYUWALAI	5 4 7	5 4 7
AGGALAI	2 3 5	2 3 5
കുറുക്കുക	3 1 2	3 1 2

DUYUWALAI 5 4 7

	(3)	(3)
	തെലി ചില.	അടക്കം.
DUYUWALAI	9 8 6	9 8 6
AGGALAI	7 6 3	7 6 3
കുറുക്കുക	2 2 3	2 2 3
		DUYUWALAI 9 8 6

	(4)	(5)	(6)	(7)
കു	6 8 4	7 3 5	8 6 4	9 4 6
വറു	4 6 2	5 2 3	6 5 1	7 4 6

8. യു ഘർ ചരക്കല്ല 539 ദുഃഖം SJBZ DZൽ ജെകു  
 ത്വർ, ശെല-4Z 425 ദുഃഖം USJBRGT; AWA TST ഔദ്യം?  
 കിരണകളെ 114 ദുഃഖം.

9. യു ഘർ ചരക്കല്ല രണ്ടാമത്ത് 896 തക്കർ [ഔദ്യ  
 ഔദ്യ] ഔദ്യ 675 തക്കർ ശെല-4Z. AWA TST ഔദ്യ.  
 കിരണകളെ 221 തക്കർ.

10. യു Dക്കുടേൽ ശെല ഔദ്യ Dക്കുട 3692 ദുഃഖം, ഔദ്യ  
 DFB 1212 ദുഃഖം, രെട ത്വർ TST ശെല; AWA TST ശെല  
 ഔദ്യ DFB?

9 30. അല്ല ശെല ചില അടക്കം ചില അടയ്ക്  
 ക്കാ, രെട ക്കാ ജെല ക്കാ ചില ചില DUYUWALAI  
 ക്കാ, ഔദ്യ AD TELA ക്കാ.

1. TZ 624 ദുഃഖം ക്കാ, ക്കാ 342, AWA TST  
 ക്കാ?

	തെലി ചില.	ഔദ്യ 2 തക്കം ചില	അടക്കം ക്കാ
DUYUWALAI	6 2 4	കുറു 4 തക്കം ക്കാ	TSTZ ശെല
AGGALAI	3 4 2	കുറു 2 തക്കം ക്കാ	TVശെല RW.പ. ഔദ്യ ക്കാ 4Z
കുറുക്കുക	2 8 2	തക്കം ചില	അടക്കം ക്കാ 2 തക്കം

## EXAMPLES FOR PRACTICE.

	(2)	(2)
	OPERATION.	PROOF.
Minuend	5 4 7	5 4 7
Subtrahend	2 3 5	2 3 5
	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>
Remainder	3 1 2	3 1 2

Minuend 5 4 7

	(3)	(3)
	OPERATION.	PROOF.
Minuend	9 8 6	9 8 6
Subtrahend	7 6 3	7 6 3
	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>
Remainder	2 2 3	2 2 3

Minuend 9 8 6

	(4)	(5)	(6)	(7)
From	684	735	864	948
Take	462	523	651	746
	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>	<hr style="width: 50%; margin: 0 auto;"/>

8. A farmer paid 539 dollars for a span of fine horses, and sold them for 425 dollars; how much did he lose?

Ans. 114 dollars.

9. A farmer raised 896 bushels of wheat, and sold 675 bushels of it; how much did he reserve?

Ans. 221 bushels.

10. A gentleman gave his son 3692 dollars, and his daughter 1212 dollars less than his son; how much did he give his daughter?

Ans. 2480 dollars.

§ 30. When any figure in the subtrahend is greater than the figure above it in the minuend, proceed thus:

1. If I have 624 dollars, and lose 342 of them, how many remain?

Ans. 282.

OPERATION.

Minuend	6 2 4	the 4 units, and find the differ-
Subtrahend	3 4 2	ence to be 2 units, which we
	<hr style="width: 50%; margin: 0 auto;"/>	write below. We then proceed
Remainder	2 8 2	to take the 4 tens from the 2





tens above it; but we here find a difficulty, since the 4 is greater than the 2, and cannot be subtracted from it. We therefore add 10 to the 2, which makes 12 tens, and then subtract the 4 from the 12, and 8 tens remain, which we write below. Then to compensate for the 10 thus added to the 2 in the minuend, we add 1 to the 3 in the next higher place in the subtrahend, which makes 4 hundreds, and subtract the 4 from the 6, and 2 hundreds remain; and thus find the remainder to be 282.

NOTE 1.—This operation depends upon the self-evident truth, *That, if any two numbers are equally increased, their difference remains the same.* In working the example 10 tens, equal to 1 hundred, were added to the 2 tens in the upper number, and 1 was added to the 3 hundreds in the lower number. Now, since the 3 stands in the hundreds place, the 1 added was in fact 1 hundred. Hence, the upper and lower numbers being equally increased, the difference is the same.

NOTE 2.—In the operation, instead of adding 10 to 2 in the minuend, 1 of the 6 hundreds can be joined to the 2 tens, thus forming 12 tens; then 4 tens from 12 tens leaves 8 tens; and 1 of the 6 hundreds having been taken, there remain only 5 hundreds; and 3 hundreds from 5 hundreds leaves 2 hundreds, and the result is the same as by the other process.

§ 31 RULE.—*Place the greater number above, and the less number under it. Place units under units, tens under tens, &c.*

*Commence at the right hand and subtract each figure of the subtrahend from the figure above it in the minuend.*

*If any figure in the subtrahend is larger than the figure above it in the minuend, add 10 to that figure in the minuend before subtracting; then, after subtracting, add 1 to the next figure of the subtrahend.*

§ 32. SECOND METHOD OF PROOF.—Subtract the remainder from the minuend, and the result will be like the subtrahend, if the work is right.



## EXAMPLES FOR PRACTICE.

	(2)	OPERATION.	(2)	PROOF.
Minuend	3 7 6			3 7 6
Subtrahend	1 6 7			1 6 7
Remainder	2 0 9			2 0 9
			Subtrahend	1 6 7

	(3)	OPERATION.	(3)	PROOF.
Minuend	5 3 1			5 3 1
Subtrahend	3 8 9			3 8 9
Remainder	1 4 2			1 4 2
			Subtrahend	3 8 9

	(4)	(5)	(6)	(7)
	Tons.	Gallons.	Pecks.	Feet.
From	978	67158	14711	100000
Take	199	14339	9197	90909
Ans.	779	52819	5514	9091

	(8)	(9)	(10)	(11)
	Miles.	Dollars.	Minutes.	Seconds.
From	67895	456798	765321	555555
Take	19999	190899	177777	177777

	(12) TAMC-A	(13) TSS
കുടി	100200300400500	10000000000000
അടവുകൾ	90807060504030	99999999999999

14. ക 671111 vgwY 199999. ടി. 471112.
15. ക 1789100 vgwY 8 8088. ടി. 981012.
16. ക 10000 0 vgwY 999999. ടി. 1.
17. ക 9999999 vgwY 1607. ടി. 9998392.
18. ക 6101507601061 vgwY 3806790989. ടി. 6097700810072.
19. ക 8054010657811 vgwY 76909748598. ടി. 7977100909213.
20. ക 7100071641115 vgwY 10071178. ടി. 7100061569937.
21. ക 501505010678 vgwY 794090589. ടി. 500710920089.
22. vgwY 99999999 കുടി 100000000 ടി. 1.
23. vgwY 4444444 കുടി 500000000000. ടി. 455555556.
24. vgwY 1234567890 കുടി 9987654321. ടി. 8753086431.
25. കുടി 800700567 vgwY 10.0101. ടി. 799690466.
26. WWAA അടവുകൾ TSSB D WWAA അടവുകൾ vgwY WW-  
AA അടവുകൾ TSSB കുടി. ടി. 24974975.
27. FLW TSSB WWAA FLW vgwY FLWAA FLW  
TSSB കുടി. ടി. 89901.
28. AAAT H\*Z TSSB DAA TSSB AAAT H\*  
കുടി, vgwY DAA TSSB AAAT H\* TSSB DAAZ  
ടി. 90909091.
29. H\* TSSB ക vgwY FLW. ടി. 999991.
30. KT TSSB ക vgwY KAA KT. ടി. 2976.
31. AAAT TSSB ക vgwY അടവുകൾ TSSB. ടി. 99995000.
32. 1,728 D-A DY & DTJBY 961, AWA TST ELY-  
ST? ടി. 767.
33. GHH OOR OOTR R DSR SHZGWA 1776 OAB-  
HART; AWA ABT BGT TSSB DZ OAA JAAH

	(12) Rods.	(13) Acres.
From	100200300400500	1000000000000
Take	90807060504030	999999999999

14. From 671111 take 199999.      Ans. 471112.
15. From 1789100 take 808088.      Ans. 981012.
16. From 1000000 take 999999.      Ans. 1.
17. From 9999999 take 1607.      Ans. 9998392.
18. From 6101507601061 take 3806790989.  
Ans. 6097700810072.
19. From 8054010657811 take 76909748598.  
Ans. 7977100909213.
20. From 7100071641115 take 10071178.  
Ans. 7100061569937.
21. From 501505010678 take 794090589.  
Ans. 500710920089.
22. Take 99999999 from 100000000.      Ans. 1.
23. Take 44444444 from 500000000.  
Ans. 455555556.
24. Take 1234567890 from 9987654321.  
Ans. 8753086431.
25. From 800700567 take 1010101.  
Ans. 799690466.
26. Take twenty-five thousand twenty-five from twenty-five millions.  
Ans. 24974975.
27. Take nine thousand ninety-nine from ninety-nine thousand.  
Ans. 89901.
28. From one hundred and one millions ten thousand one hundred one take ten millions one hundred one thousand and ten.  
Ans. 90909091.
29. From one million take nine.      Ans. 999991.
30. From three thousand take thirty-three.  
Ans. 2967.
31. From one hundred millions take five thousand.  
Ans. 99995000.
32. From 1728 dollars, I paid 961 dollars; how many remain?  
Ans. 767 dollars.

ഓരോന്നിന്നു 640 ഓരോന്നിന്നു 640 യുദ്ധം ചെയ്ത 1815 ഓരോന്നിന്നു.  
കുലം. 39 ജനങ്ങൾ.

34. 1769 ഓരോന്നിന്നു ഓരോന്നിന്നു തുടങ്ങിയ 0-V TS RA  
ചെയ്ത 1874 ഓരോന്നിന്നു WFLA വഴിയായി, AWA ജനങ്ങൾ സംഭവം.  
കുലം. 105 ജനങ്ങൾ.

35. ചിലർക്കു 6851 മറ്റു ചിലർക്കു 2120 മറ്റു ചിലർക്കു 6851 മറ്റു ചിലർക്കു 2120  
A, DTC-YZ ക്ലബ്ബ് 2120 മറ്റു ചിലർക്കു 2120 മറ്റു ചിലർക്കു 2120  
മറ്റു ചിലർക്കു 2120 മറ്റു ചിലർക്കു 2120 മറ്റു ചിലർക്കു 2120  
കുലം. 4731.

36. 1840 ഓരോന്നിന്നു 640 മറ്റു ചിലർക്കു 17,069,453 മറ്റു ചിലർക്കു  
1850 ഓരോന്നിന്നു 23,191,876 മറ്റു ചിലർക്കു. AWA തുടങ്ങിയ  
കുലം. 6,122,423.

37. 1850 ഓരോന്നിന്നു 640 മറ്റു ചിലർക്കു 56,619,-  
608 മറ്റു ചിലർക്കു [TCC] 4M, 1853 ഓരോന്നിന്നു 73,436,690  
മറ്റു ചിലർക്കു മറ്റു ചിലർക്കു. AWA തുടങ്ങിയ മറ്റു ചിലർക്കു  
കുലം. 16,817,082 മറ്റു ചിലർക്കു.

38. 1850 ഓരോന്നിന്നു 13,121,498 മറ്റു ചിലർക്കു മറ്റു ചിലർക്കു  
മറ്റു ചിലർക്കു മറ്റു ചിലർക്കു. 0-YUZ ക്ലബ്ബ് 15,367,691 മറ്റു ചിലർക്കു  
മറ്റു ചിലർക്കു. AWA മറ്റു ചിലർക്കു മറ്റു ചിലർക്കു മറ്റു ചിലർക്കു  
കുലം. 2,246,193 മറ്റു ചിലർക്കു.

39. ചിലർക്കു 13,960,856 മറ്റു ചിലർക്കു 13,960,856 മറ്റു ചിലർക്കു  
7,779,855 മറ്റു ചിലർക്കു. AWA തുടങ്ങിയ ചിലർക്കു  
കുലം. 6,181,001 മറ്റു ചിലർക്കു.

40. 640 മറ്റു ചിലർക്കു 17,069,453 മറ്റു ചിലർക്കു 17,069,453 മറ്റു ചിലർക്കു  
കുലം. 577,904.

41. തുടങ്ങിയ 3,1769, ഓരോന്നിന്നു, മറ്റു ചിലർക്കു 0-VZ TS RA മറ്റു ചിലർക്കു  
മറ്റു ചിലർക്കു മറ്റു ചിലർക്കു മറ്റു ചിലർക്കു മറ്റു ചിലർക്കു മറ്റു ചിലർക്കു  
കുലം. 49,841,021 മറ്റു ചിലർക്കു.

33. The national independence of the United States was declared in 1776; how many years from that period to the close of the last war with Great Britain, in 1815?

Ans. 39 years.

34. The last transit of Venus was in 1769, and the next will be in 1874; how many years will intervene.

Ans. 105 years.

35. The State of New Jersey contains 6851 square miles, and Delaware 2120 square miles. How many more square miles has the former State than the latter?

Ans. 4731.

36. In 1840 the number of inhabitants in the United States was 17,069,453, and in 1850 it was 23,191,876; what was the increase?

Ans. 6,122,423.

37. In 1850 there were raised in the State of Ohio 56,619,608 bushels of corn, and in 1853, 73,436,690 bushels; what was the increase?

Ans. 16,817,082 bushels.

38. By the census of 1850, 13,121,498 bushels of wheat were raised in New York, and 15,367,691 bushels in Pennsylvania; how many bushels in the latter State more than in the former?

Ans. 2,246,193 bushels.

39. The city of New York owes 13,960,856 dollars, and Boston owes 7,779,855 dollars; how much more does New York owe than Boston?

Ans. 6,181,001 dollars.

40. From five hundred eighty-one thousand take three thousand and ninety-six.

Ans. 577,904.

41. It was ascertained by a transit of Venus, June 3, 1769, that the mean distance of the earth from the sun is ninety-five millions one hundred seventy-three thousand one hundred twenty-seven miles, and that the mean distance of Mars from the sun is one hundred forty-five millions fourteen thousand one hundred forty-eight miles. Required the difference of the distances.

Ans. 49,841,021 miles.





## MULTIPLICATION.

§ 33. When any number is to be added to itself several times, the operation may be shortened by a process called MULTIPLICATION.

1. If a man can earn 8 dollars in 1 week, what will he earn in 4 weeks?

ILLUSTRATION.— It is evident, since a man can earn 8 dollars in 1 week, that in 4 weeks he will earn 4 times as much, and the result may be obtained by addition; thus,  $8 + 8 + 8 + 8 = 32$  dollars; or, by a more convenient process, by multiplying by 4, the number of times 8 dollars is to be taken; thus, 4 times 8 dollars are 32 dollars. Hence in 4 weeks he will earn 32 dollars.

## MULTIPLICATION TABLE.

2 times	1	are	2	3 times	1	are	3
2 "	2	"	4	3 "	2	"	6
2 "	3	"	6	3 "	3	"	9
2 "	4	"	8	3 "	4	"	12
2 "	5	"	10	3 "	5	"	15
2 "	6	"	12	3 "	6	"	18
2 "	7	"	14	3 "	7	"	21
2 "	8	"	16	3 "	8	"	24
2 "	9	"	18	3 "	9	"	27
2 "	10	"	20	3 "	10	"	30
2 "	11	"	22	3 "	11	"	33
2 "	12	"	24	3 "	12	"	36
4 times	1	are	4	5 times	1	are	5
4 "	2	"	8	5 "	2	"	10
4 "	3	"	12	5 "	3	"	15
4 "	4	"	16	5 "	4	"	20
4 "	5	"	20	5 "	5	"	25
4 "	6	"	24	5 "	6	"	30
4 "	7	"	27	5 "	7	"	35
4 "	8	"	32	5 "	8	"	40
4 "	9	"	36	5 "	9	"	45
4 "	10	"	40	5 "	10	"	50
4 "	11	"	44	5 "	11	"	55
4 "	12	"	48	5 "	12	"	60

6	TG&JJ	1,	6	TY	7	TG&JJ	1,	7	TY
6	"	2,	12	"	7	"	2,	14	"
6	"	3,	18	"	7	"	3,	21	"
6	"	4,	24	"	7	"	4,	28	"
6	"	5,	30	"	7	"	5,	35	"
6	"	6,	36	"	7	"	6,	42	"
6	"	7,	42	"	7	"	7,	49	"
6	"	8,	48	"	7	"	8,	56	"
6	"	9,	54	"	7	"	9,	63	"
6	"	10,	60	"	7	"	10,	70	"
6	"	11,	66	"	7	"	11,	77	"
6	"	12,	72	"	7	"	12,	84	"

8	TG&JJ	1,	8	TY	9	TG&JJ	1,	9	TY
8	"	2,	16	"	9	"	2,	18	"
8	"	3,	24	"	9	"	3,	27	"
8	"	4,	32	"	9	"	4,	36	"
8	"	5,	40	"	9	"	5,	45	"
8	"	6,	48	"	9	"	6,	54	"
8	"	7,	56	"	9	"	7,	63	"
8	"	8,	64	"	9	"	8,	72	"
8	"	9,	72	"	9	"	9,	81	"
8	"	10,	80	"	9	"	10,	90	"
8	"	11,	88	"	9	"	11,	99	"
8	"	12,	96	"	9	"	12,	108	"

10	TG&JJ	1,	10	TY	11	TG&JJ	1,	11	TY
10	"	2,	20	"	11	"	2,	22	"
10	"	3,	30	"	11	"	3,	33	"
10	"	4,	40	"	11	"	4,	44	"
10	"	5,	50	"	11	"	5,	55	"
10	"	6,	60	"	11	"	6,	66	"
10	"	7,	70	"	11	"	7,	77	"
10	"	8,	80	"	11	"	8,	88	"
10	"	9,	90	"	11	"	9,	99	"
10	"	10,	100	"	11	"	10,	110	"
10	"	11,	110	"	11	"	11,	121	"
10	"	12,	120	"	11	"	12,	132	"

6	times	1	are	6
6	"	2	"	12
6	"	3	"	18
6	"	4	"	24
6	"	5	"	30
6	"	6	"	36
6	"	7	"	42
6	"	8	"	48
6	"	9	"	54
6	"	10	"	60
6	"	11	"	66
6	"	12	"	72

7	times	1	are	7
7	"	2	"	14
7	"	3	"	21
7	"	4	"	28
7	"	5	"	35
7	"	6	"	42
7	"	7	"	49
7	"	8	"	56
7	"	9	"	63
7	"	10	"	70
7	"	11	"	77
7	"	12	"	84

8	times	1	are	8
8	"	2	"	16
8	"	3	"	24
8	"	4	"	32
8	"	5	"	40
8	"	6	"	48
8	"	7	"	56
8	"	8	"	64
8	"	9	"	72
8	"	10	"	80
8	"	11	"	88
8	"	12	"	96

9	times	1	are	9
9	"	2	"	18
9	"	3	"	27
9	"	4	"	36
9	"	5	"	45
9	"	6	"	54
9	"	7	"	63
9	"	8	"	72
9	"	9	"	81
9	"	10	"	90
9	"	11	"	99
9	"	12	"	108

10	times	1	are	10
10	"	2	"	20
10	"	3	"	30
10	"	4	"	40
10	"	5	"	50
10	"	6	"	60
10	"	7	"	70
10	"	8	"	80
10	"	9	"	90
10	"	10	"	100
10	"	11	"	110
10	"	12	"	120

11	times	1	are	11
11	"	2	"	22
11	"	3	"	33
11	"	4	"	44
11	"	5	"	55
11	"	6	"	66
11	"	7	"	77
11	"	8	"	88
11	"	9	"	99
11	"	10	"	110
11	"	11	"	121
11	"	12	"	132

12	TGQJL	1,	12	TU	13	TGQJL	1,	13	TU
12	"	2,	24	"	13	"	2,	26	"
12	"	3,	36	"	13	"	3,	39	"
12	"	4,	48	"	13	"	4,	52	"
12	"	5,	60	"	13	"	5,	65	"
12	"	6,	72	"	13	"	6,	78	"
12	"	7,	84	"	13	"	7,	91	"
12	"	8,	96	"	13	"	8,	104	"
12	"	9,	108	"	13	"	9,	117	"
12	"	10,	120	"	13	"	10,	130	"
12	"	11,	132	"	13	"	11,	143	"
12	"	12,	144	"	13	"	12,	156	"

2. AWA TST JEGGL 5 JRVH JOP OGGOLA TR 6 DSQA NY HWA RT?

ЛАБЛАУ.—ТГЗ HWA RVH DOP OGGOLA TR 6 DSQA JEGGL NY, HWA 5 JRVH JOP 5 TGQJL OLY TST JEGGL HSLAOT; 5 TGQJL 6 DSQA 30 DSQA HSLAOT. OLYZ TGQJL 5 JRVH JOP OGGOLA TR 6 DSQA HWA RT JEGGL NY 30 DSQA SLFEGALS.

3. AWA TST JEGGL 6 TOLBF SA 2 DSQA SLFEGALS HWA TOLBF?

4. AWA TST JEGGL YWA 5 TOLP SA 7 TOLBF SLFEGALS HWA TOLP?

5. AWA TST SLFEGALS JOKOLA 7 TOLP SA 12 TOLBF SLFEGALS HWA TOLP?

6. AWA TST JEGGL 9 TSE SVA 10 DSQA SLFEGALS HWA RE RT?

7. OPLA DOP EAL (JGA TGOLA DHYSRT) 4 TOLBF JEGGL NY AWA TST SLFEGALS 9 TOLP OPLA?

8. TGZ HWA WH RT 4 TLH NY. AWA TLH HSLA 9 WH RT? 7EZ WH RT? 8EZ WH RT? 4EZ WH RT? 3EZ WH RT?

[Oly ad wh de TLH de BPH DHYLB DSQA SH& SOVA TU. HWA TLH DPE TOLBF JEGGL. HWA WH WP TOLBF JEGGL. HWA BPH 24 TOLBF JEGGL.]

9. TGZ 12 WH HWA BPH NY, AWA TST WH HSLAOT 3 BPH? 5EZ BPH NY AWA WH? 7EZ NY BPH? 9EZ NY BPH?

12 times 1 are	12	13 times 1 are	13
12 " 2 "	24	13 " 2 "	26
12 " 3 "	36	13 " 3 "	39
12 " 4 "	48	13 " 4 "	52
12 " 5 "	60	13 " 5 "	65
12 " 6 "	72	13 " 6 "	78
12 " 7 "	84	13 " 7 "	91
12 " 8 "	96	13 " 8 "	104
12 " 9 "	108	13 " 9 "	117
12 " 10 "	120	13 " 10 "	130
12 " 11 "	132	13 " 11 "	143
12 " 12 "	144	13 " 12 "	156

2. What is the cost of 5 barrels of flour at 6 dollars per barrel?

ILLUSTRATION.—If 1 barrel of flour cost 6 dollars, 5 barrels will cost 5 times as much; 5 times 6 dollars are 30 dollars. Therefore 5 barrels of flour at 6 dollars per barrel will cost 30 dollars.

3. What is the cost of 6 bushels of beans at 2 dollars per bushel?

4. What is the cost of 5 quarts of cherries at 7 cents per quart?

5. What will 7 quarts of vinegar cost at 12 cents per quart?

6. What is the cost of 9 acres of land at 10 dollars per acre?

7. If a pint of currants cost 4 cents, what will 9 pints cost?

8. If in one penny there are 4 farthings, how many in 9 pence? in 7 pence? in 8 pence? in 4 pence? in 3 pence?

[NOTE.—Penny, farthing and shilling are the names of English pieces of money. One farthing is worth half a cent. One penny is worth 2 cents. One shilling is worth 24 cents.]

9. If 12 pence make a shilling, how many pence in 3 shillings? in 5 shillings? in 7 shillings? in 9 shillings?

10. Tēz ēw tēlēō tawā oħōrā 6 tēlēō-tā jōē-  
ēēā ōy, āwā tst ōlēēē-ās 4 tēlēō? 5ōz tēlēō?  
6ōz tēlēō? 7ōz tēlēō? 8ōz tēlēō? 9ōz tēlēō?  
10ōz tēlēō? 12ōz tēlēō?

11. Ēw re tyō ēr svā 4 mā lōf, āwāz tst mā lōf  
wē re tyō ērt? 3ōz re tyō ōy? 4ōz re ōy? 5ōz  
re ōy? 6ōz re ōy? 9ōz re ōy?

12. Kōō lēēlēō ēw tawēē 5 dō-āā jēēē.  
āwā tst lējēā hēlēā 5 tawēē? 6ōz tawēē? 7ōz  
tawēē? 8ōz tawēē? 9ōz tawēē?

13. Ēw hēōō dē kōō 4ā ēēw lēēāōā hēlēōf 8  
dō-āā djēā; āwā tst lējēā hēlēā 4 hēōōt? 6ōz hē-  
ōōt? 9ōz hēōōt?

14. āwā tst jēēēōō-ā 4 tōōē ēālēō-āō 5 tēlēō-tā  
jēēēā ōy ēwōf tōōē ērt, 8ōz tōēwh jōktōā 10 tē-  
lēō-tā ēwōf ēwh ērt?

15. Tēz yē dōōō ēēw y dō-āā ēōēā ōy ēōvē-  
ōā ērt, āwā tst ēōēā 3 tēōvēlēōā ērt? 4ōz tēō-  
vēlēōā? 5ōz tēōvēlēōā? 6ōz tēōvēlēōā? 7ōz tēōvē-  
lēōā? 9ōz tēōvēlēōā?

16. Tēz 1 tōōēē tōwēā ōtō 12 dō-āā jēēēā ōy;  
āwā tst ōlēēē-ās 4 tōōēē tōwēā? 5ōz tōōēēē tōwē-  
ēā? 6ōz tōōēēē tōwēā? 7ōz tōōēēē tōwēā? 9ōz tōōē-  
ēēē tōwēā? 12ōz tōōēēē tōwēā?

17. Tēz 3 tawēē lāwēēyōō lōōā ōy lēēāōā ēw  
tawēē lēēlēōā, āwā tawēē lōōā lāwēēyōō 7 tawēē-  
ēē lēēlēōā ōlēē?

18. Tēz 5 tōōēē ēōw lēā ōy ēw ēwōō ēvh dōē  
ōōōōā tr ēēāōā ōy āwā tōōēē ēōw tōwōf tst jēēē-  
ēā hēlēōf 12 jwōō ēvh lōē ēōōōā tr?

19. Tēz ēw ōā ēēkvā dāē 25 tēlēō-tā jēēēā ōy;  
āwā tst ōlēēē-ās 12 tōā.

Лавъ.—25 оъу 2 тѡлаа 5z тѡѡу ty; 12 тѡ-  
ēā 2 тѡлаа 24 тѡлаа ty, 12z тѡēā 5 тѡѡу 60  
тѡѡу ty; dōō 6 тѡлаа ōōō, 24 тѡлаа 6z тѡлаа  
lōōā 30 тѡлаа ty, dō 300 ōōō. Ōōyēz hēlēōā 12  
tōā 300 tēlēō-tā ēlēē-ās.

20. ēw tēlēō dō-ā (Dhyēē jōōā) 20 ēēē lōf;  
āwā ēēē lōf 3 tēlēō? 4ōz tēlēō ēē āwā ēēē? 6ōz  
tēlēō?

10. If one pound of raisins cost 6 cents, what will 4 pounds cost? 5 pounds? 6 pounds? 7 pounds? 8 pounds? 9 pounds? 10 pounds? 12 pounds?

11. In one acre there are four roods; how many roods in 2 acres? in 3 acres? in 4 acres? in 5 acres? in 6 acres? in 9 acres?

12. A good pair of boots is worth 5 dollars; what must I give for 5 pairs? for 6 pairs? for 7 pairs? for 8 pairs? for 9 pairs?

13. A cord of good walnut wood may be obtained for 8 dollars; what must I give for 4 cords? for 6 cords? for 9 cords?

14. What is the cost of 4 quarts of milk at 5 cents a quart, and 8 gallons of vinegar at 10 cents a gallon?

15. If a man earn 7 dollars a week, how much will he earn in 3 weeks? in 4 weeks? in 5 weeks? in 6 weeks? in 7 weeks? in 9 weeks?

16. If 1 thousand feet of boards cost 12 dollars, what is the cost of 4 thousand? 5 thousand? 6 thousand? 7 thousand? 9 thousand? 12 thousand?

17. If 3 pairs of shoes buy one pair of boots, how many pairs of shoes will it take to buy 7 pairs of boots?

18. If 5 bushels of apples buy 1 barrel of flour, how many bushels of apples are equal in value to 12 barrels of flour?

19. If one yard of canvas cost 25 cents, what will 12 yards cost?

ILLUSTRATION.—25 is composed of 2 tens and 5 units; 12 times 2 tens are 24 tens, and 12 times 5 units are 60 units, or 6 tens; 24 tens added to 6 tens make 30 tens, or 300. Therefore, 12 yards will cost 300 cents.

20. In one pound (English money,) there are 20 shillings; how many shillings in 3 pounds? in 4 pounds? in 6 pounds?

21. T<sup>o</sup>Z H<sup>o</sup> F<sup>o</sup>WH G<sup>o</sup>SP<sup>o</sup> T<sup>o</sup>Q<sup>o</sup> 25 T<sup>o</sup>Q<sup>o</sup>-T<sup>o</sup> J<sup>o</sup>EG<sup>o</sup> A<sup>o</sup>Y A<sup>o</sup>WA T<sup>o</sup>ST A<sup>o</sup>L<sup>o</sup>FE<sup>o</sup>G<sup>o</sup> 2 T<sup>o</sup>Q<sup>o</sup>-WH? 4<sup>o</sup>Z T<sup>o</sup>Q<sup>o</sup>-WH? 9<sup>o</sup>Z T<sup>o</sup>Q<sup>o</sup>-WH?

22. T<sup>o</sup>Z Y<sup>o</sup> G<sup>o</sup> D<sup>o</sup>Q<sup>o</sup> 12 D<sup>o</sup>S<sup>o</sup>-A<sup>o</sup> E<sup>o</sup>Q<sup>o</sup>P<sup>o</sup> A<sup>o</sup>Y 16 T<sup>o</sup>S<sup>o</sup> A<sup>o</sup>WA T<sup>o</sup>ST 10 T<sup>o</sup>Q<sup>o</sup>HT D<sup>o</sup>H<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> Q<sup>o</sup>ZP<sup>o</sup> Q<sup>o</sup>Q<sup>o</sup>Y T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>?

23. T<sup>o</sup>Z D<sup>o</sup>H<sup>o</sup>-A<sup>o</sup> D<sup>o</sup>S<sup>o</sup>Y G<sup>o</sup>EM 28 T<sup>o</sup>G<sup>o</sup>C<sup>o</sup>G<sup>o</sup> E<sup>o</sup>Q<sup>o</sup>-Q<sup>o</sup> A<sup>o</sup>Y H<sup>o</sup> T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> O<sup>o</sup>-V A<sup>o</sup>WA T<sup>o</sup>B<sup>o</sup> E<sup>o</sup>Q<sup>o</sup>-Q<sup>o</sup> 4 T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>? 6<sup>o</sup>Z T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>? 9<sup>o</sup>Z T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>?

24. T<sup>o</sup>Z R<sup>o</sup>G<sup>o</sup> D<sup>o</sup>A<sup>o</sup>T<sup>o</sup>Q<sup>o</sup>S<sup>o</sup>Q<sup>o</sup>T 15 T<sup>o</sup>Q<sup>o</sup>Y<sup>o</sup>P<sup>o</sup> S<sup>o</sup>S<sup>o</sup> H<sup>o</sup> T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>, A<sup>o</sup>WA T<sup>o</sup>B<sup>o</sup> Q<sup>o</sup>A<sup>o</sup>T<sup>o</sup>Q<sup>o</sup>S<sup>o</sup>Q<sup>o</sup> 7 T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>? 11<sup>o</sup>Z T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>? 12<sup>o</sup>Z T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>?

25. A<sup>o</sup>G<sup>o</sup>Q<sup>o</sup> Q<sup>o</sup>Q<sup>o</sup> D<sup>o</sup>H<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Y Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>ET 8 Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>-Q<sup>o</sup> H<sup>o</sup>Q<sup>o</sup>Z T<sup>o</sup>G<sup>o</sup>-Q<sup>o</sup>Q<sup>o</sup> Q<sup>o</sup>RT 6 T<sup>o</sup>H<sup>o</sup>Q<sup>o</sup>V<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>Y, H<sup>o</sup>Q<sup>o</sup>Z T<sup>o</sup>H<sup>o</sup>Q<sup>o</sup>V<sup>o</sup>Q<sup>o</sup> 12 Q<sup>o</sup>H<sup>o</sup> D<sup>o</sup>H<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Y; A<sup>o</sup>WA Q<sup>o</sup>H<sup>o</sup> D<sup>o</sup>H<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Y Q<sup>o</sup> Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>ET?

26. T<sup>o</sup>Z Y<sup>o</sup> G<sup>o</sup> D<sup>o</sup>Q<sup>o</sup> 7 T<sup>o</sup>Q<sup>o</sup>Y<sup>o</sup> S<sup>o</sup>S<sup>o</sup> H<sup>o</sup> T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>, A<sup>o</sup>WA T<sup>o</sup>B<sup>o</sup> S<sup>o</sup> 8 T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>? 11<sup>o</sup>Z T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>? 20<sup>o</sup>Z T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>? 30<sup>o</sup>Z T<sup>o</sup>G<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>A<sup>o</sup>A<sup>o</sup>?

§ 34. D<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>R<sup>o</sup>A<sup>o</sup> A<sup>o</sup>D<sup>o</sup> Q<sup>o</sup>Q<sup>o</sup>, Q<sup>o</sup>Q<sup>o</sup>Y H<sup>o</sup>Q<sup>o</sup> A<sup>o</sup>4<sup>o</sup>Q<sup>o</sup> D<sup>o</sup>Y<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>G<sup>o</sup>-Q<sup>o</sup>Q<sup>o</sup> Q<sup>o</sup>-Q<sup>o</sup>Q<sup>o</sup> A<sup>o</sup>4<sup>o</sup>Q<sup>o</sup> A<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>ST T<sup>o</sup>Q<sup>o</sup>H<sup>o</sup>Q<sup>o</sup> S<sup>o</sup>A<sup>o</sup>Q<sup>o</sup>-T.

D<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>R<sup>o</sup>A<sup>o</sup> F<sup>o</sup>R<sup>o</sup> K<sup>o</sup>T T<sup>o</sup>G<sup>o</sup>Q<sup>o</sup>Y A<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> H<sup>o</sup>S<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>, A<sup>o</sup>D<sup>o</sup> T<sup>o</sup>A<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> D<sup>o</sup>H<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Y, D<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>V<sup>o</sup>Q<sup>o</sup>, T<sup>o</sup>ST Q<sup>o</sup>P<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>T.

D<sup>o</sup>H<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Y Q<sup>o</sup>Q<sup>o</sup>Y T<sup>o</sup>ST F<sup>o</sup>R<sup>o</sup> D<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>, D<sup>o</sup>Q<sup>o</sup> D<sup>o</sup>Y<sup>o</sup>Q<sup>o</sup> Q<sup>o</sup>Q<sup>o</sup>.

D<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>V<sup>o</sup>Q<sup>o</sup> Q<sup>o</sup>Q<sup>o</sup>Y T<sup>o</sup>ST F<sup>o</sup>R<sup>o</sup> E<sup>o</sup>V<sup>o</sup>Q<sup>o</sup> I<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>ET, Q<sup>o</sup>Q<sup>o</sup>Y<sup>o</sup>Z E<sup>o</sup>H<sup>o</sup>F<sup>o</sup>R<sup>o</sup> H<sup>o</sup>E<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> T<sup>o</sup>G<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> D<sup>o</sup>Y<sup>o</sup>Q<sup>o</sup> F<sup>o</sup>R<sup>o</sup> D<sup>o</sup>H<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Y.

T<sup>o</sup>ST Q<sup>o</sup>P<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>T, Q<sup>o</sup>Q<sup>o</sup>Y Q<sup>o</sup>H<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> H<sup>o</sup>S<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> Q<sup>o</sup>Q<sup>o</sup> D<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>R<sup>o</sup>A<sup>o</sup> A<sup>o</sup>Y.

E<sup>o</sup>H<sup>o</sup>F<sup>o</sup>R<sup>o</sup> T<sup>o</sup>E<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> D<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> F<sup>o</sup>R<sup>o</sup>T<sup>o</sup> W<sup>o</sup>F<sup>o</sup> J<sup>o</sup>Q<sup>o</sup>T<sup>o</sup>W<sup>o</sup> Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>-Z<sup>o</sup>T<sup>o</sup> J<sup>o</sup>P<sup>o</sup>Z<sup>o</sup>-Q<sup>o</sup>Q<sup>o</sup> J<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>; A<sup>o</sup>D<sup>o</sup> T<sup>o</sup>G<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> X. Q<sup>o</sup>Q<sup>o</sup>Y E<sup>o</sup>H<sup>o</sup>F<sup>o</sup>R<sup>o</sup> H<sup>o</sup>E<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> W<sup>o</sup>F<sup>o</sup> A<sup>o</sup>4<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> Q<sup>o</sup>Q<sup>o</sup> D<sup>o</sup>S<sup>o</sup>P<sup>o</sup> F<sup>o</sup>R<sup>o</sup> Q<sup>o</sup>Q<sup>o</sup>Y H<sup>o</sup>E<sup>o</sup>Q<sup>o</sup>-T<sup>o</sup> A<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> F<sup>o</sup>R<sup>o</sup>T<sup>o</sup>; A<sup>o</sup>D<sup>o</sup> T<sup>o</sup>G<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> 7 X 5

=35. Q<sup>o</sup>Q<sup>o</sup>Y D<sup>o</sup>A<sup>o</sup>P<sup>o</sup>Q<sup>o</sup> F<sup>o</sup>R<sup>o</sup> A<sup>o</sup>D<sup>o</sup> Q<sup>o</sup>Q<sup>o</sup>, 7 D<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>R<sup>o</sup>A<sup>o</sup> 5 E<sup>o</sup>W<sup>o</sup>Q<sup>o</sup> 35 T<sup>o</sup>W<sup>o</sup>Q<sup>o</sup> H<sup>o</sup>S<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>.

§ 35. D<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>V<sup>o</sup>Q<sup>o</sup> 12 H<sup>o</sup>S<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> H<sup>o</sup>F<sup>o</sup>Q<sup>o</sup>T.

1. Q<sup>o</sup>Q<sup>o</sup>Y D<sup>o</sup>SS<sup>o</sup>Q<sup>o</sup>Q<sup>o</sup> A<sup>o</sup>Y 175, 7Z E<sup>o</sup>V<sup>o</sup>Q<sup>o</sup> A<sup>o</sup>Y.

Q<sup>o</sup>Q<sup>o</sup>Y. 1225.

	T <sup>o</sup> E <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> .	
D <sup>o</sup> H <sup>o</sup> SS <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> Y	1 7 5	D <sup>o</sup> SS <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> V <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> A <sup>o</sup> Q <sup>o</sup> W <sup>o</sup> Q <sup>o</sup> -A <sup>o</sup>
D <sup>o</sup> SS <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> V <sup>o</sup> Q <sup>o</sup>	7	A <sup>o</sup> Y Q <sup>o</sup> Q <sup>o</sup> H <sup>o</sup> Q <sup>o</sup> P <sup>o</sup> T <sup>o</sup> Q <sup>o</sup> H <sup>o</sup> Q <sup>o</sup> A <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup>
	-----	D <sup>o</sup> H <sup>o</sup> SS <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> Y <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> 5 R <sup>o</sup> A <sup>o</sup> SS <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup>
T <sup>o</sup> ST Q <sup>o</sup> P <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> T	1 2 2 5	Q <sup>o</sup> Q <sup>o</sup> 7 T <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> , 35 T <sup>o</sup> Q <sup>o</sup> H <sup>o</sup> Q <sup>o</sup>
Q <sup>o</sup> Q <sup>o</sup> A <sup>o</sup> 5Z T <sup>o</sup> Q <sup>o</sup> H <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> , Q <sup>o</sup> Q <sup>o</sup> Y <sup>o</sup> Z 5 T <sup>o</sup> Q <sup>o</sup> H <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> T <sup>o</sup> V <sup>o</sup> Q <sup>o</sup> P <sup>o</sup> 7 A <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> H <sup>o</sup> Q <sup>o</sup> P <sup>o</sup> ,		H <sup>o</sup> S <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> , D <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> Q <sup>o</sup> - 3 T <sup>o</sup> Q <sup>o</sup>



21. A gallon of molasses is worth 25 cents; what is the value of 2 gallons? of 4 gallons? of 9 gallons?

22. If 1 man earn 12 dollars in 16 days, how much would 10 men earn in the same time?

23. If a steam-engine runs 28 miles in 1 hour, how far will it run in 4 hours? in 6 hours? in 9 hours?

24. If the earth turns on its axis 15 degrees in 1 hour how far will it turn in 7 hours? in 11 hours? in 12 hours?

25. In a certain regiment there are 8 companies, in each company 6 platoons, and in each platoon 12 soldiers; how many soldiers are there in the regiment?

26. If 1 man walk 7 miles in 1 hour, how far will he walk in 8 hours? in 11 hours? in 20 hours? in 30 hours?

§ 34. MULTIPLICATION is the process of taking a number as many times as there are units in another number.

In multiplication three terms are employed, called the Multiplicand, the Multiplier, and the Product.

The MULTIPlicAND is the number to be multiplied or taken.

The MULTIPlicIER is the number by which we multiply, and denotes the number of times the multiplicand is to be taken.

The PRODUCT is the result, or number produced by the multiplication.

The SIGN OF MULTIPLICATION is formed by two short lines crossing each other obliquely; thus,  $\times$ . It shows that the numbers between which it is placed are to be multiplied together; thus,  $7 \times 5 = 35$  is read, 7 multiplied by 5 is equal to 35.

§ 35. When the multiplier does not exceed 12, proceed thus:

1. Let it be required to multiply 175 by 7.

Ans. 1225.

OPERATION.	Having written the multiplier under the unit figure of the multiplicand, we multiply the 5 units by 7, obtaining 35 units, or 3 tens and 5 units, and set down the 5 units under
Multiplicand	1 7 5
Multiplier	7
Product	1 2 2 5

00YZ 3 T00AA TSL0GT0 T00AA J000 TAP 000VJ.  
 00Z 7 T00AA TAPSS0000 7 T000 49 T00AA HSP000,  
 00Z 3 T00AA, 00Y TSL00 H0Y, SS TAP0000, 00YZ  
 52 T00AA HSP000, D0 0000 5 T00AA00 2Z T00-  
 AA. 00YZ 2 T00AA TV00D, 5Z T00AA00 TSL000,  
 00Y 1 T00AA00 TAPSS0000 7 T000; S00000Z TSL00T  
 5 T00AA00, 00YZ WWS T00AA00 0Y0, ADZ D000  
 TV00D; TSTZ 00000T 1225 HSP000.

D0000VJ 0AA0T.

	(2)	(3)	(4)
APSS00	8756	4567	7896
00	4	3	5
	<hr/>	<hr/>	<hr/>
0000.	35024	13701	39480
	(5)	(6)	(7)
56807	47893	61657	89765
5	6	7	9
	<hr/>	<hr/>	<hr/>
284035	287358	431599	807885

9. APSS00 767853 00 9. 0000. 6910677.
10. APSS00 876538765 00 8. 0000. 7012310120.
11. APSS00 7654328 00 7. 0000. 53580296.
12. APSS00 4976387 00 5. 0000. 24881935.
13. APSS00 8765448 00 12. 0000. 105185376.
14. APSS00 4567839 00 11. 0000. 50246229.
15. AWA TST 000000 8675 T000 JRVH 0000 TR  
 7 D000 J0000 0Y 00 T000T. 0000. 60725 D000.
16. AWA TST 000000 25384 T000 0000 9 D000  
 0000000 00 T0000? 0000. 228456 D000.
17. T00Z 00 000 AD 0000 2538 00000 AP000,  
 AWA 0AAW 11 000T? 0000. 27918 AP000.
- 0 36. DSS000VJ 12 HSP00000T AD T000.  
 1. 763 DSS0000 0Y, 24 EVJ 0Y. 0000. 18312.



	TELLA.	DSSORRVA TVWFD of-
Dhssoroy	7 6 3	OHAP Dhssoroy AWT,
DSSORVA	2 4	TASSOZ Dhssoroy 4 TR-
	-----	6 OY TOWO JAJA IY,
	3 0 5 2	DSSORVA FRT, OY O I-
	1 5 2 6	HSOD 35A LLAPT. OYZ
	-----	OY O HS Dhssoroy TAJ-
TST GRRGAT	1 8 3 1 2	SSOZ TR 2 TAJA AW-
		DSSORVA FRT. TSW-

PELLA TEA AWGA HSPALAE JAJA OY AD TASSO-  
OET, TAJA OOA FR TAWGA, OY JGAJ ofOHAP 2  
AWA DSSORVA FRT; OYZ NYCHO OY AD WF TDSSO-  
RA TVVCHS HS TST GRRGAT 763 DSSORR 24 EWORA  
18312 HSPALAE.

§ 37. TELLALA.—DSSORVA AWGA ofOHAP Dhssor-  
OY AWT, koro TELLA JAJA, TOWO FR JAWGA ofO-  
HAP TOWO SAWAT, TAJAZ FR JAWGA ofOHAP TAJA  
SAWAT DB DC GJR OY.

TGZ DSSORVA OYO JAJA NY, HS JAJA SAWA  
Dhssoroy FRT JSSORVA OYOT, TOWO AW ADOVA,  
EVA DSSORVA, TST GRRGAT DSHAP DOR DOVA JAJA  
AWGA ofOHAP AW A DSSORR JAJA DSHAPZ DOVA  
JAJA GVGV OY JLVVA WFL FR TST GRRGAT; koro  
DJA DSHORVA OFTEVA TST GRRGAT HS JAJA JAW-  
GA.

TGZ DSSORVA FR WFO DC OAJAP TST JAJA NJAW  
OYOT FR JAJA JEVVA DSSORVA, TSTZ OLRGGA JAW-  
YOT JSOZVA JAWGA DSHORVA DJA DSH TAP DOR DO-  
VA JAJA HS SGOOT JAWGA ofOHAP SAWA JEWORA DSS-  
ORR.

OY AD TST OLRGGA JSCPA JAVVA HSPALOT, OYZ  
AD JSCHOA TST OALWHAT, OY HS TST GRRGGA HS-  
PALOT; OY DORA HRY.

TGSHOR.—TGZ ZA NJAW DSR FR JOEGGA JAJA  
SAWA DSSORVA FRT JSHORVA HRO HSPAL ORAT  
OVAGWOLYH JOEGGA JAJA FR JEVVA JSSORVA.

§ 38, TELLALA.—DSSORVA JSSO & L  
Dhssoroy, TGZ TST GRRGGA OY NJAWO TEA DORA  
TST GRRGAT, SGAR D4VA HSPALOT RPLA FRT.

2, JSSO 7895 & 56.

SEAL. 442120.

	OPERATION.	
Multiplicand	7 6 3	We write the multiplier under the multiplicand, and proceed to multiply the multiplicand by 4, the unit figure of the multiplier, as in § 35. We then in like manner, multiply the multiplicand by the 2 tens in the multiplier, taking care to write the first figure obtained by this multiplication in tens' column, directly under the 2 of the multiplier; and, adding the <i>partial</i> products obtained by the two multiplications, we find the whole product of 763 multiplied by 24 to be 18312.
Multiplier	2 4	
	<hr style="width: 50%; margin: 0 auto;"/> 3 0 5 2	
	<hr style="width: 50%; margin: 0 auto;"/> 1 5 2 6	
Product	1 8 3 1 2	

§ 37. RULE.— *Write the multiplier under the multiplicand, arranging units under units, tens under tens, &c.*

*If the multiplier is one figure, multiply each figure of the multiplicand in succession, beginning with the units figure, by the multiplier, writing the right hand figure of each product under the figure multiplied, and adding the left hand figure, if any, to the succeeding product; but observing to write down all the figures of the last product.*

*If the multiplier contains two or more figures, multiply by each figure separately, writing its products in a separate line, and observing to place the right hand figure of each line under the figure by which you multiply.*

*Add these products together, and their sum will be the whole product required.*

NOTE.— When there are ciphers between the significant figures of the multiplier, pass over them in the operation, and multiply by the significant figures only.

§ 38. PROOF.— Multiply the multiplier by the multiplicand, and if the result is like the first product, the work is supposed to be right,

2. Multiply 7895 by 56,

Ans. 442120.

	TELLA.	AAGVADY.
DhSSSoraDY	7895	56
DSSSoraVA	56	7895
	<hr/>	<hr/>
	47370	280
	39475	504
	<hr/>	<hr/>
TST & P&G&T	442120	448
		392
		<hr/>
		TST & P&G&T 442120

TGSHOOL.—Ara sh-aolala dzagvade ad oolart  
 ooy tst & p&g&t dhovart, do-ada dssoravya, ooyz  
 sgar tella d4-a sh y aocart dhssoravyz jv sh hsl-  
 adat. Ooyz ad tella aagva pr dvgw-ades iavla  
 tella prt, ooyz ic bssel eh ahrsh sh ooy tella  
 prt.

	(3)	(4)
ASSOC	67895	78956
al	36	47
	<hr/>	<hr/>
	407370	552692
	203685	315824
	<hr/>	<hr/>
SOP.	2444220	3710932

	(5)	(6)
ASSOC	89325	47896
al	901	2008
	<hr/>	<hr/>
	89325	383168
	803925	95792
	<hr/>	<hr/>
SOP.	80481825	96175168

7. AWA TST shlegas 47 jwo jrvh adpt & slb tg-  
 la 13 ds-a shlegas h-oh prt?

SOP. 611 ds-a.

	OPERATION.	PROOF.
Multiplicand	7 8 9 5	5 6
Multiplier	5 6	7 8 9 5
	<hr/>	<hr/>
	4 7 3 7 0	2 8 0
	3 9 4 7 5	5 0 4
	<hr/>	4 4 8
Product	4 4 2 1 2 0	3 9 2
		<hr/>
	Product	4 4 2 1 2 0

NOTE.—The common mode of proof in business is to divide the product by the multiplier, and if the work is right, the quotient will be like the multiplicand. This mode of proof anticipates the principles of division, and therefore cannot be employed without a previous knowledge of that rule.

## EXAMPLES FOR PRACTICE.

	(3)	(4)
Multiply	67895	78956
By	36	47
	<hr/>	<hr/>
	407370	552692
	203685	315824
	<hr/>	<hr/>
Ans.	2444220	3710932
	(5)	(6)
Multiply	89325	47896
By	901	2008
	<hr/>	<hr/>
	89325	383168
	803925	95792
	<hr/>	<hr/>
Ans.	80481825	96175168

7. What is the cost of 47 hogsheads of molasses at 13 dollars per hogshead?      Ans. 611 dollars.





8. What is the cost of 97 oxen at 29 dollars each?

Ans. 2813 dollars.

9. I sold a farm containing 367 acres, at 97 dollars per acre; what was the amount?

Ans. 35599 dollars.

10. An army of 17006 men receive each 109 dollars as their annual pay; what is the amount paid the whole army?

Ans. 1853654 dollars.

11. If a mechanic deposit annually in the Savings Bank 407 dollars, what will be the sum deposited in 27 years?

Ans. 10989 dollars.

12. If a man travel 37 miles in one day, how far will he travel in 365 days?

Ans. 13505 miles.

13. If there be 24 hours in 1 day, how many hours in 365 days?

Ans. 8760 hours.

14. How many gallons in 87 hogsheads, there being 63 gallons in each?

Ans. 5481 gallons.

15. If the expenses of the Massachusetts Legislature be 1839 dollars per day, what will be the amount in a session of 109 days?

Ans. 200451 dollars.

16. If a hogshead of sugar contains 368 pounds, how many pounds in 187 hogsheads?

Ans. 68816 pounds.

17. Multiply 675 by 476.

Ans. 321300.

18. Multiply 679 by 763.

Ans. 518077.

19. Multiply 899 by 981.

Ans. 881919.

20. Multiply 7854 by 1234.

Ans. 9691836.

21. Multiply 3001 by 6071.

Ans. 18219071.

22. Multiply 7117 by 9876.

Ans. 70287492.

23. Multiply 376546 by 407091.

Ans. 153288487686.

§ 39. When the multiplier is 1 with one or more ciphers attached on the right, as 10, 100, &c., proceed thus:

1. In one day there are 24 hours; how many hours in 10 days? How many in 100 days?

Ans. 240, 2400.

	OPERATION.		By the removal of a figure one place to the left, the value of that figure is increased ten times, (§ 8). Therefore by attaching one-
Multiplicand	24	24	
Multiplier	10	100	
Product	240	2400	



eipher on the right of 24, which is the multiplicand, each figure is removed one place to the left, and its value is increased ten times, or it is multiplied by ten. By attaching two ciphers each figure is removed two places to the left, and its value is increased one hundred times, or it is multiplied by 100.

*RULE.*—Write on the right of the multiplicand, as many ciphers as there are in the multiplier. The number so formed will be the required product.

## EXAMPLES FOR PRACTICE.

2. Multiply 4256 by 10.                      Ans. 42560.  
 3. Multiply 6542 by 100.                    Ans. 654200.  
 4. Multiply 8954 by 1000.                 Ans. 8954000.  
 5. Multiply 25563 by 10000.              Ans. 255630000.

§ 40. When the multiplier is any number other than one, with ciphers attached on the right, proceed thus:

1. There are 365 days in a year. How many days in 30 years?                      Ans. 10950 days.

OPERATION.		Multiply 365, the multiplicand, by 3 the significant figure of the multiplier, which gives the product 1095. To the right of this attach the cipher of the multiplier, which
Multiplicand	365	
Multiplier	30	
Product	10950	

gives 10950, which is the product sought.

2. In one year there are 365 days. How many days in 3400 years.                      Ans. 1241000.

OPERATION.		Multiply 365, the multiplicand, by 4 the right hand significant figure of the multiplier, then by 3 the next significant figure. This gives the product 12410. On the right of this product attach the two ciphers of the multiplier, which gives 1,241,000, the product required.
Multiplicand	365	
Multiplier	3400	
Product	1241000	

gives 1241000, the product required.





ΘΑΥ ΑΔ ΤΣΤ ΓΡΑΒΟΑΤ ΔΓΡΑ ΙΕΡΥ.

ΙΡΒΘΑΘΑΘΕ ΙΕΥΑ.

(2)

713378900

70080

---

5707031200

4993652300

---

49993593312000

3. Δσσcc 8785324 & 3200.

Σωαρ. 28113036800.

4. Δσσcc 300030 & 47070.

Σωαρ. 14122412100.

EXAMPLES FOR PRACTICE.

$$\begin{array}{r}
 (2) \\
 713378900 \\
 \quad 70080 \\
 \hline
 5707031200 \\
 4993652300 \\
 \hline
 49993593312000
 \end{array}$$

3. Multiply 8,785,324 by 3,200.

Ans. 28,113,036,800.

4. Multiply 300,030 by 47,070.

Ans. 14,122,412,100.

## DඔWඔA FRT.

§ 42. සිඳ් ධූෂ්‍යාඔA ටූූූA AූඔA ඉඔA A4ඔA Aූූ  
 ඉූඔA A4ඔA FRT, ඔයු ටූූA D4ඔA FRT DඔWඔA FRT,  
 DZ4FT

TST FRT DඔWඔA හූූඔAඔET DඔWඔA DZ4FT.

TSTZ FRT ඔයු EV.A DඔWඔV.A හූූඔAඔET DඔV.AA  
 DZ4FT.

ඉඔAූඔEZ ඉඔූRT DZ4FT.

AූඔA Z ඉූූA B ඔූ DඔVූූA FRT ඉූූA B A DZ4FT.

Aඔඔයු—Yූ ටූූඔA Aූඔඔයු 48 RSW S&Y, ඔයු Z  
 ඉූූඔඔයු ඉඔVූA 6 ටඔඔA Aඔූූඔයු. AWA TST A.A හූූඔA  
 ඔඔඔ DඔBූඔඔ FRT?

A.Aඔයු හූූඔAඔඔ DඔBූඔඔ FRT, ටූූූA 6 (ඔයු ඔඔ  
 හු Aඔූූඔයු Aූූ 48 FRT (ඔයු TST හු RSW S&T)

TysූA හූූඔAඔඔ ඉV ඉඔA A4ඔA ඔූWූ 6 ඔූූූූූූ 48  
 ඔඔඔ. T.AඔAඔඔ 8 FRT ඔයු A4ඔA, ඉ.AූූඔV.A 8 ටූූූA  
 6 48 හු. 6Z 8 ටූූූA AූW 48 FRT; ඔයු Z DඔBූඔඔ  
 FRT Aඔූූඔයු 8 RSW A.A හූූඔAඔඔ.

## DඔWඔA ඉූූ-ΖූූT.

2	2	ූ	1	LAGW	3	3	ූ	1	LAGW
2	4	ූ	2	“	3	6	“	2	“
2	6	ූ	3	“	3	9	“	3	“
2	8	ූ	4	“	3	12	“	4	“
2	10	“	5	“	3	15	“	5	“
2	12	“	6	“	3	18	“	6	“
2	14	“	7	“	3	21	“	7	“
2	16	“	8	“	3	24	“	8	“
2	18	“	9	“	3	27	“	9	“
2	20	“	10	“	3	30	“	10	“
2	22	“	11	“	3	33	“	11	“
2	24	“	12	“	3	36	“	12	“



## DIVISION.

§ 42. When it is desired to find how many times one number is contained in another, the process of reckoning is called Division.

The number to be divided is called the **DIVIDEND**.

The number by which it is divided is called the **DIVISOR**.

The answer is called the **QUOTIENT**.

If there is a number left after dividing, it is called the **REMAINDER**.

**ILLUSTRATION.**—A certain teacher had 48 apples which he wished to distribute equally among 6 scholars. How many must he give to each?

He must give to each as many apples as 6, (the number of scholars,) is contained times in 48, the number of apples. We enquire what number 6 must be multiplied by to make 48. We see that 8 is the number, because 8 times 6 are 48. 6 then is contained 8 times in 48, and he must give to each of the scholars 8 apples.

## DIVISION TABLE.

2 in	2	1 time	3 in	3	1 time
2 "	4	2 times	3 "	6	2 times
2 "	6	3 "	3 "	9	3 "
2 "	8	4 "	3 "	12	4 "
2 "	10	5 "	3 "	15	5 "
2 "	12	6 "	3 "	18	6 "
2 "	14	7 "	3 "	21	7 "
2 "	16	8 "	3 "	24	8 "
2 "	18	9 "	3 "	27	9 "
2 "	20	10 "	3 "	30	10 "
2 "	22	11 "	3 "	33	11 "
2 "	24	12 "	3 "	36	12 "

4	4	၆	၁	hAGW
4	8	၆	၂	၆
4	12	၆	၃	၆
4	16	၆	၄	၆
4	20	၆	၅	၆
4	24	၆	၆	၆
4	28	၆	၇	၆
4	32	၆	၈	၆
4	36	၆	၉	၆
4	40	၆	၁၀	၆
4	44	၆	၁၁	၆
4	48	၆	၁၂	၆

5	5	၆	၁	hAGW
5	10	၆	၂	၆
5	15	၆	၃	၆
5	20	၆	၄	၆
5	25	၆	၅	၆
5	30	၆	၆	၆
5	35	၆	၇	၆
5	40	၆	၈	၆
5	45	၆	၉	၆
5	50	၆	၁၀	၆
5	55	၆	၁၁	၆
5	60	၆	၁၂	၆

6	6	၆	၁	hAGW
6	12	၆	၂	၆
6	18	၆	၃	၆
6	24	၆	၄	၆
6	30	၆	၅	၆
6	36	၆	၆	၆
6	42	၆	၇	၆
6	48	၆	၈	၆
6	54	၆	၉	၆
6	60	၆	၁၀	၆
6	66	၆	၁၁	၆
6	72	၆	၁၂	၆

7	7	၆	၁	hAGW
7	14	၆	၂	၆
7	21	၆	၃	၆
7	28	၆	၄	၆
7	35	၆	၅	၆
7	42	၆	၆	၆
7	49	၆	၇	၆
7	56	၆	၈	၆
7	63	၆	၉	၆
7	70	၆	၁၀	၆
7	77	၆	၁၁	၆
7	84	၆	၁၂	၆

8	8	၆	၁	hAGW
8	16	၆	၂	၆
8	24	၆	၃	၆
8	32	၆	၄	၆
8	40	၆	၅	၆
8	48	၆	၆	၆
8	56	၆	၇	၆
8	64	၆	၈	၆
8	72	၆	၉	၆
8	80	၆	၁၀	၆
8	88	၆	၁၁	၆
8	96	၆	၁၂	၆

9	9	၆	၁	hAGW
9	18	၆	၂	၆
9	27	၆	၃	၆
9	36	၆	၄	၆
9	45	၆	၅	၆
9	54	၆	၆	၆
9	63	၆	၇	၆
9	72	၆	၈	၆
9	81	၆	၉	၆
9	90	၆	၁၀	၆
9	99	၆	၁၁	၆
9	108	၆	၁၂	၆

4	in	4	1	time
4	"	8	2	times
4	"	12	3	"
4	"	16	4	"
4	"	20	5	"
4	"	24	6	"
4	"	27	7	"
4	"	32	8	"
4	"	36	9	"
4	"	40	10	"
4	"	44	11	"
4	"	48	12	"

5	in	5	1	time
5	"	10	2	times
5	"	15	3	"
5	"	20	4	"
5	"	25	5	"
5	"	30	6	"
5	"	35	7	"
5	"	40	8	"
5	"	45	9	"
5	"	50	10	"
5	"	55	11	"
5	"	60	12	"

6	in	6	1	time
6	"	12	2	times
6	"	18	3	"
6	"	24	4	"
6	"	30	5	"
6	"	36	6	"
6	"	42	7	"
6	"	48	8	"
6	"	54	9	"
6	"	60	10	"
6	"	66	11	"
6	"	72	12	"

7	in	7	1	time
7	"	14	2	times
7	"	21	3	"
7	"	28	4	"
7	"	35	5	"
7	"	42	6	"
7	"	49	7	"
7	"	56	8	"
7	"	63	9	"
7	"	70	10	"
7	"	77	11	"
7	"	84	12	"

8	in	8	1	time
8	"	16	2	times
8	"	24	3	"
8	"	32	4	"
8	"	40	5	"
8	"	48	6	"
8	"	56	7	"
8	"	64	8	"
8	"	72	9	"
8	"	80	10	"
8	"	88	11	"
8	"	96	12	"

9	in	9	1	time
9	"	18	2	times
9	"	27	3	"
9	"	36	4	"
9	"	45	5	"
9	"	54	6	"
9	"	63	7	"
9	"	72	8	"
9	"	81	9	"
9	"	90	10	"
9	"	99	11	"
9	"	108	12	"



10	in	10	1	time	11	in	11	1	time
10	"	20	2	times	11	"	22	2	times
10	"	30	3	"	11	"	33	3	"
10	"	40	4	"	11	"	44	4	"
10	"	50	5	"	11	"	55	5	"
10	"	60	6	"	11	"	66	6	"
10	"	70	7	"	11	"	77	7	"
10	"	80	8	"	11	"	88	8	"
10	"	90	9	"	11	"	99	9	"
10	"	100	10	"	11	"	110	10	"
10	"	110	11	"	11	"	121	11	"
10	"	120	12	"	11	"	132	12	"

12	in	12	1	time	13	in	13	1	time
12	"	24	2	times	13	"	26	2	times
12	"	36	3	"	13	"	39	3	"
12	"	48	4	"	13	"	52	4	"
12	"	60	5	"	13	"	65	5	"
12	"	72	6	"	13	"	78	6	"
12	"	84	7	"	13	"	91	7	"
12	"	96	8	"	13	"	104	8	"
12	"	108	9	"	13	"	117	9	"
12	"	120	10	"	13	"	130	10	"
12	"	132	11	"	13	"	143	11	"
12	"	144	12	"	13	"	156	12	"

## ORAL EXERCISES.

2. A merchant was paid 12 dollars for 3 hats; what was the price of each?

ILLUSTRATION.—As the merchant was paid 12 dollars for three hats, for 1 hat he must have been paid as many dollars as 3 is contained times in 12. 3 is contained in 12 4 times, for 4 times 3 are 12. 4 dollars then was the price of each hat.

3. A man gave 6 dollars for three pigs; what did each pig cost?

4. A farmer gave 16 dollars for 4 sheep; what did he give for each sheep?

5. Tgz 3 jrvh jof 4m 9 ds-aa jecgei sy; awa tst jecgei h- rvh doft?

6. Dje 48 ds-aa h-ajbray 6 t-ov s-aoel-lyt; awa tst h-ajbra f-4 b-v?

7. H- d-ss-aa a-aa- s-ger s-fo- e-lyma 30 jvll-; awa- ta-aa- a-h-lymes 5 t-ah- d-ss-aa?

8. Y- d-ss-aa 72 ds-aa s-jbr 8 g- s- d-lyo; awa jecgei f-4 1 d-lyo? awa jecgei f-4 5 d-lyo?

9. Tgz 28 t-aa d-ly e-ly-ly sy 4 ds-aa b-j-; awa t-aa e-ly-ly h- ds-aa b-j-? awaz 7 ds-aa b-j-? awaz 9 ds-aa b-j-?

[aa svi f-ger d-ly d-ss-aa 3 t-aw-ly t-ss-aa h-y.]

10. Y- d-ss-aa 56 t-alo-ly o-jbr 8 t-ly-ly rsw o-h-ly-; awa tst jecgei f-4 1 t-ly-ly? 7oz t-ly-ly.

11. Y- d-ss-aa 24 t-ly-ly o-ss-aa o-ly-ly 6 t-ly-ly-ly ta-; awa t-ly-ly o-ss-aa 1 t-ly-ly-ly ta-; 10oz t-ly-ly-ly ta-;?

12. 5 ds-aa l-ly-ly 7 b-ly; awa tst s-ly-ly 1 b-ly? 10oz awa tst s-ly-ly-ly o-ly-ly-ly s-ly-ly-ly?

13. Tgz 100 t-ly-ly 4m-ly 5 f-ly-ly l-ly-ly-ly sy f-ly-ly-ly ta-; awa ta-; l-ly-ly-ly sy h- f-ly-ly?

14. 20 f-ly-ly awa h-ly-ly 2? awa h-ly-ly 4? awa h-ly-ly 5? awa h-ly-ly 10?

15. 24 f-ly-ly awa h-ly-ly 3? awa h-ly-ly 4? awa h-ly-ly 6? awa h-ly-ly 8?

16. 7 awa h-ly-ly 21 f-ly-ly? 28oz f-ly-ly? 56oz f-ly-ly? 35-oz? 14oz? 63oz? 77oz? 70oz? 84oz?

17. 6 awa h-ly-ly 12 f-ly-ly? 36oz f-ly-ly? 18oz? 54oz? 60oz? 42oz? 48oz? 72oz? 66oz?

18. 9 awa h-ly-ly 27 f-ly-ly? 45oz? 63oz? 81oz? 99oz? 10 oz?

19. 11 awa h-ly-ly 22 f-ly-ly? 55oz? 77oz? 88oz? 110-oz? 132oz?

20. 12 awa h-ly-ly 36 f-ly-ly? 60oz f-ly-ly? 72oz? 84oz? 120oz? 144oz?

43. Dawola f-ly-ly kt a-ly o-ly-ly.

T-ly-ly f-ly-ly, d-ly-ly o-ly-ly g-ly-ly e-ly-ly.

O-ly-ly f-ly-ly-ly d-ly-ly-ly o-ly-ly-ly d-ly-ly-ly o-ly-ly-ly s-ly-ly-ly s-ly-ly-ly-ly d-ly-ly-ly; ad t-ly-ly -. O-ly-ly ad h-ly-ly o-ly-ly-ly-ly-ly-ly-ly-ly

5. If 3 barrels of corn cost 9 dollars what will one barrel cost?

6. I paid a boy 48 dollars for 6 months work; what did I pay him a month?

7. One man can plow a certain field in 30 days; how long will it take 5 men to plow it?

8. A man paid 72 dollars for 8 calves; how much did 1 calf cost? how much did 5 calves cost?

9. If 28 yards of cloth can be bought for 4 dollars, how many yards can be bought for 1 dollar? how many for 7 dollars? how many for 9 dollars?

[A yard is the measure by which cloth is measured, and is three feet in length.]

10. A lady gave 56 cents for 8 pounds of dried apples; what did 1 pound cost? what did 7 pounds cost?

11. A man rode 24 miles in 6 hours; how many miles did he ride in one hour? how many in 10 hours?

12. I paid 56 dollars for 7 hogs; what did one hog cost? what would 10 cost at the same price?

13. If 100 bundles of fodder will feed 5 horses for 1 week, how long will it feed 1 horse?

14. In 20 how many times 2? how many times 4? how many times 5? how many times 10?

15. In 24 how many times 3? how many times 4? how many times 6? how many times 8?

16. How many times 7 in 21? in 28? in 56? in 35? in 14? in 63? in 77? in 70? in 84?

17. How many times 6 in 12? in 36? in 18? in 54? in 60? in 42? in 48 in 72? in 66?

18. How many times 9 in 27? in 45? in 63? in 81? in 99? in 108?

19. How many times 11 in 22? in 55? in 77? in 88? in 110? in 132?

20. How many times 12 in 36? in 60? in 72? in 84? in 120? in 144?

§ 43. DIVISION is indicated in three ways.

1st, By what is called the sign of division, which is a short horizontal line with a dot above and below it, thus,  $\div$  This sign shows that the number before it is

തെളിപ്പിക്കുന്ന മരണകാലം, 16 വർഷം കഴിഞ്ഞു. 16 - 4 വർഷം 16 മരണകാലം, 4 വർഷം.

2. മരണകാലം 16 വർഷം 16 മരണകാലം, 4 വർഷം. 16 - 4 വർഷം 16 മരണകാലം, 4 വർഷം.

3. തെളിപ്പിക്കുന്ന മരണകാലം 16 വർഷം 16 മരണകാലം, 4 വർഷം. 16 - 4 വർഷം 16 മരണകാലം, 4 വർഷം.

$$\begin{array}{r}
 16 \div 4 = 4 \\
 4 \cdot 4 = 16 \\
 \frac{16}{4} = 4
 \end{array}$$

മരണകാലം 16 വർഷം 16 മരണകാലം, 4 വർഷം. 16 - 4 വർഷം 16 മരണകാലം, 4 വർഷം.

44. മരണകാലം, 12 വർഷം 12 വർഷം.

1. 574 വർഷം 6 വർഷം 6 വർഷം.

1429 വർഷം.

തെളിപ്പിക്കുന്ന മരണകാലം 6, 8574 മരണകാലം 6, 1429 വർഷം 6, 8574 മരണകാലം 6, 1429 വർഷം.

മരണകാലം 16 വർഷം 16 മരണകാലം, 4 വർഷം. 16 - 4 വർഷം 16 മരണകാലം, 4 വർഷം. 16 - 4 വർഷം 16 മരണകാലം, 4 വർഷം.



to be divided by the number after it; thus  $16 \div 4$  shows that 16 is to be divided by 4.

2d. Division is also indicated by a curved line drawn between the divisor and the dividend; thus,  $4)16$ . This also shows that 16 is to be divided by 4.

A 3rd way of expressing division is what is called fractional expression; thus,  $\frac{16}{4}$ . This expression also shows that 16 is to be divided by 4.

$$16 \div 4 = 4$$

$$4)16 = 4$$

$$\frac{16}{4} = 4$$

These three expressions are all read  
16 divided by 4 equals 4.

§ 44. SHORT DIVISION, or when the divisor does not exceed 12.

1. Divide 8574 dollars equally among 6 men.

Ans. 1429 dollars.

OPERATION.

Divisor 6) 8574 Dividend  
—————  
1429 Quotient

We first inquire how many times 6, the divisor, is contained in 8, the first figure of the dividend, which is thou-

sands, and find it to be 1 time, and 2 thousands remaining. We write the 1 directly under the 8, its dividend, for the thousands' figure of the quotient. To 5, the next figure of the dividend, which is hundreds, we regard as prefixed the 2 thousands remaining, which equal 20 hundreds, thus forming 25 hundreds, in which we find the divisor 6 to be contained 4 times, and 1 hundred remaining. We write the 4 for the hundreds' figure in the quotient, and the 1 hundred remaining, equal to 10 tens, we regard as prefixed to 7, the next figure of the dividend, which is tens, forming 17 tens, in which the divisor 6 is contained 2 times, and 5 tens remaining. We write the 2 for the tens' figure in the quotient, and the 5 tens remaining, equal to 50 units, we regard as prefixed to 4, the last figure of the dividend, which is units, forming 54 units, in which the divisor 6 is contained 9 times. Writing the 9 for the units' figure of the quotient, we find 1429 as the entire quotient.

§ 45. തലമുഖം—മരണകർമ്മം കഴിഞ്ഞു മരണകർമ്മം  
 ചെയ്ത, മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത, മരണകർമ്മം ചെയ്ത  
 മരണകർമ്മം ചെയ്ത.

മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത  
 മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത  
 മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത.

മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത  
 മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത  
 മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത.

മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത  
 മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത  
 മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത.

മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത  
 മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത  
 മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത.

§ 46. തലമുഖം—മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത  
 മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത  
 മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത മരണകർമ്മം ചെയ്ത.

മരണകർമ്മം ചെയ്ത.

2. മരണകർമ്മം 6375 5.

മരണകർമ്മം 5 ) 6375 മരണകർമ്മം.  
 \_\_\_\_\_  
 1275 മരണകർമ്മം.

മരണകർമ്മം.  
 1275 മരണകർമ്മം.  
 5 മരണകർമ്മം.  
 \_\_\_\_\_  
 6375 മരണകർമ്മം.

(3)  
 3 ) 7893762  
 \_\_\_\_\_  
 2631254

(4)  
 4 ) 4763256  
 \_\_\_\_\_  
 1190814

(5)  
 5 ) 3789565  
 \_\_\_\_\_

(6)  
 6 ) 8765389  
 \_\_\_\_\_

(7)  
 7 ) 987635  
 \_\_\_\_\_

(8)  
 8 ) 378532  
 \_\_\_\_\_

(9)  
 9 ) 8953784  
 \_\_\_\_\_

(10)  
 11 ) 7678903  
 \_\_\_\_\_

(11)  
 12 ) 6345321  
 \_\_\_\_\_

§ 45. RULE.— Write the divisor at the left hand of the dividend, and draw a curved line between them, and draw a horizontal line under the dividend.

Then, beginning at the left, find how many times the divisor is contained in the fewest figures of the dividend that will contain it, and write the quotient under its dividend.

If there be a remainder, regard it as prefixed to the next figure of the dividend, and divide as before.

Should any dividend be less than the divisor, write a cipher in the quotient, and annex another figure, if any remains, for a new dividend.

NOTE.— If there is a remainder after dividing the last figure of the dividend, place that remainder at the right of the quotient, draw a line under it, and place the divisor under that line.

§ 46. FIRST METHOD OF PROOF.— Multiply the divisor and quotient together, and to the product add the remainder, if any, and, if the work is right, the result obtained will equal the dividend.

## EXAMPLES FOR PRACTICE.

2. Divide 6375 by 5.

OPERATION.

Divisor 5) 6375 Dividend.

1275 Quotient.

PROOF.

1275 Quotient.

5 Divisor.

6375 Dividend

(3)  
3) 7893762

2631254

(4)  
4) 4763256

1190814

(5)  
5) 3789565

(6)  
6) 8765389

(7)  
7) 987635

(8)  
8) 378532

(9)  
9) 8953784

(10)  
11) 7678903

(11)  
12) 6345321

	ഇടതുവശം.	ലിഖിതം.
12. അടവു 479956 ന്റെ 6.	79992	4
13. അടവു 385678 ന്റെ 7.	55096	6
14. അടവു 438789 ന്റെ 8.	54848	5
15. അടവു 1678767 ന്റെ 9.	186529	6
16. അടവു 11497583 ന്റെ 12.	958131	11
17. അടവു 5678956 ന്റെ 5.		1
18. അടവു 1135791 ന്റെ 7.		6
19. അടവു 1622550 ന്റെ 8.		6
20. അടവു 2028180 ന്റെ 9.		3
21. അടവു 2253530 ന്റെ 12.		2
22. അടവു 1877940 ന്റെ 11.		9

ഇടതുവശം

2084732

23. 944580 മരണപത്രം ലിഖിതം 12 തരം  
 മരണപത്രം; AWAZ TST മരണപത്രം മരണപത്രം മരണപത്രം  
 മരണപത്രം.

മരണപത്രം. 78715 മരണപത്രം.

24. 154503 മരണപത്രം 9 തരം മരണപത്രം മരണപത്രം  
 AWAZ TST മരണപത്രം മരണപത്രം മരണപത്രം? മരണപത്രം. 17167 മരണപത്രം.

25. YGT SVI മരണപത്രം മരണപത്രം മരണപത്രം 7011608  
 മരണപത്രം SPECWAT, മരണപത്രം TST മരണപത്രം 8 തരം മരണപത്രം; AWAZ  
 TST മരണപത്രം മരണപത്രം മരണപത്രം? മരണപത്രം. 876451 മരണപത്രം.

26. മരണപത്രം മരണപത്രം 178656 മരണപത്രം മരണപത്രം മരണപത്രം  
 മരണപത്രം TST മരണപത്രം മരണപത്രം 12 തരം മരണപത്രം; AWAZ TST മരണപത്രം  
 മരണപത്രം മരണപത്രം മരണപത്രം? മരണപത്രം. 14888 മരണപത്രം.

27. 7 തരം മരണപത്രം മരണപത്രം മരണപത്രം 67123 തരം മരണപത്രം  
 മരണപത്രം; AWAZ തരം മരണപത്രം മരണപത്രം മരണപത്രം?

മരണപത്രം. 9589 തരം മരണപത്രം.

28. TGT 9 മരണപത്രം മരണപത്രം മരണപത്രം മരണപത്രം മരണപത്രം, AWAZ  
 തരം മരണപത്രം മരണപത്രം 895347 മരണപത്രം മരണപത്രം മരണപത്രം?

മരണപത്രം. 99483 തരം മരണപത്രം.

മരണപത്രം [മരണപത്രം മരണപത്രം മരണപത്രം, മരണപത്രം മരണപത്രം, മരണപത്രം  
 മരണപത്രം മരണപത്രം മരണപത്രം, മരണപത്രം മരണപത്രം, □.

29. മരണപത്രം TST SVI 876136 മരണപത്രം മരണപത്രം മരണപത്രം 8 തരം  
 മരണപത്രം; AWAZ TST മരണപത്രം മരണപത്രം മരണപത്രം മരണപത്രം മരണപത്രം?

മരണപത്രം. 109517 മരണപത്രം.

	QUOTIENTS.	REM.
12. Divide 479956 by 6.	79992	4
13. Divide 385678 by 7.	55096	6
14. Divide 438789 by 8.	54848	5
15. Divide 1678767 by 9.	186529	6
16. Divide 11497583 by 12.	958131	11
17. Divide 5678956 by 5.		1
18. Divide 1135791 by 7.		6
19. Divide 1622550 by 8.		6
20. Divide 2028180 by 9.		3
21. Divide 2253530 by 12.		2
22. Divide 1877940 by 11.		9

Sum of the quotients, 2084732

23. Divide 944,580 dollars equally among 12 men, and what will be the share of each?

Ans. 78715 dollars.

24. Divide 154,503 acres of land equally among 9 persons; how much will each have?

Ans. 17,167 acres.

25. A plantation in Cuba was sold for 7,011,608 dollars, and the amount was divided among 8 persons. What was paid to each person? Ans. 876,451 dollars.

26. A prize valued at 178,656 dollars is to be equally divided among 12 men; what will be the share of each?

Ans. 14,888 dollars.

27. Among 7 men, 67,123 bushels of wheat are to be distributed; how many bushels will each man receive?

Ans. 9,589 bushels.

28. If 9 square feet make 1 square yard, how many yards in 895,347 square feet? Ans. 99,483 yards.

NOTE.—A square is a figure with its four angles right angles, and its four sides of equal length, thus  $\square$ .

29. A township of 876,136 acres is to be divided among 8 persons; how many acres will be the portion of each? Ans. 109,517 acres.



30. Bought a farm for 5670 dollars, and sold it for 7896 dollars, and I divide the amount gained among 6 persons; what does each receive? Ans. 371 dollars.

31. If 6 shillings make a dollar, how many dollars in 7890 shillings? Ans. 1315 dollars.

§ 47. LONG DIVISION, or when the Divisor exceeds 12.

1. A gentleman divided 4712 dollars equally among his 19 children; what was the share of each?

Ans. 248 dollars.

OPERATION.

Dividend.

Divisor 19) 4712 (248 Quotient.

38

91

76

152

152

000

Set down the divisor and the dividend as in short division. Then draw a curved line on the right of the dividend. Inquire how many times 19, the divisor, is contained in 47, the smallest number in the dividend that will contain the di-

visor. By examining 19 and 47 you conclude that it is contained 2 times. Write 2 for the left hand figure of the quotient, on the right of the dividend, and multiply the divisor, 19, by 2, the first figure of the quotient, and find it makes 38. Set this 38 under 47, and you know that 2, the quotient figure, is not too large, because if it were, 19 multiplied by it would give a product larger than 47. Then subtract 38 from 47, and you find 9 remaining. Then you know that 2, the quotient figure is not too small, because if it were this remainder would be greater than 19. Then bring down 1, the next figure of the dividend and place it on the right of 9, the remainder, making 91. Then inquire how many times 19 is contained in 91, and you find it to be 4 times. Write the 4 for the next figure of the quotient, and multiply 19 by it. Write the product 76 under the





91, and subtract as before; you find the remainder to be 15. Then bring down the 2, the last figure of the dividend, and place it on the right of the 15, making 152. Then inquire how many times 19 is contained in 152; try it at 8 times, and multiply 19 by 8; this gives a product of 152. Subtract as before: there being no remainder, you have 248 as the quotient.

§ 48. RULE.— *Write the Divisor on the left of the Dividend, draw a curved line between them and also draw a curved line on the right of the Dividend.*

*Inquire how many times the Divisor is contained in the fewest figures on the left of the Dividend that will contain it; write the figure indicating the number of times on the right of the Dividend for the first figure of the Quotient.*

*Multiply the Divisor by the quotient figure, write the product under the figures of the Dividend that you are dividing and subtract the product from these figures.*

*If there is a remainder write it down, and bring down the next figure of the Dividend, and place it on the right of this remainder.*

*Then inquire how many times the divisor is contained in this new number, and write the number of times on the right of the first figure of the Quotient; multiply the Divisor by this figure, and subtract the product from the number divided.*

*Bring down the third figure of the Dividend and place it on the right of the remainder, and proceed as before until all the figures of the Dividend are divided.*

*If at the last there is a remainder, place it on the right of the Quotient as in Short Division § 44.*

*If when a figure is brought down, the number thus formed is too small to contain the Divisor, write a naught in the Quotient, and bring down another figure from the Dividend. If it is still too small, write another naught in the Quotient, and bring down another figure, and so on until you get a number large enough to contain the divisor.*

*Thus proceed until all the figures of the dividend are divided.*

ЛАБЬОУ 1.—<sup>0</sup>VAG<sup>9</sup> O<sup>9</sup>PZABA P<sup>R</sup> D4 DRET O<sup>C</sup> HAT DAVAA. T<sup>G</sup>Z A<sup>9</sup>AG<sup>9</sup> IAA & IAPRT O<sup>9</sup>PZABA DAVAA HE TY<sup>R</sup> AY, D<sup>C</sup> O<sup>9</sup>AP SHE, O<sup>9</sup>Y EHP<sup>R</sup> HEL<sup>9</sup> O<sup>9</sup>GAHG<sup>9</sup> HEO<sup>9</sup> D4<sup>9</sup> P<sup>R</sup>T, DZ A<sup>9</sup>CE<sup>R</sup> JAA<sup>9</sup> J4<sup>9</sup>LA O<sup>9</sup>LA<sup>9</sup>LA P<sup>R</sup>T.

ЛАБЬОУ 2.—T<sup>G</sup>Z IAP<sup>R</sup> O<sup>9</sup>4A&T DAVAA D<sup>9</sup>SS<sup>9</sup>ORA EW<sup>9</sup> O<sup>9</sup> J4<sup>9</sup>LA A<sup>9</sup>CE<sup>R</sup> JAA<sup>9</sup>AT, O<sup>9</sup>Y TST G<sup>9</sup>LA&T O<sup>9</sup>C R<sup>9</sup>AY SHE<sup>9</sup>LA<sup>9</sup>, RAS SHE DAWALA SAA<sup>9</sup> J4<sup>9</sup>LA JAV<sup>9</sup>AY, O<sup>9</sup>Y EHP<sup>R</sup> H<sup>9</sup>LA<sup>9</sup> A<sup>9</sup>CE<sup>R</sup> JAA<sup>9</sup> J4<sup>9</sup>LA R<sup>9</sup>AY P<sup>R</sup>T, D<sup>C</sup> D4 D<sup>9</sup>RP TELI P<sup>R</sup>T.

§ 49. WPA TELI AAG<sup>9</sup>LAU—T<sup>G</sup>Z O<sup>9</sup>PZABA O<sup>9</sup> WA. O<sup>9</sup> LA O<sup>9</sup>Y AD O<sup>9</sup>PZABA H<sup>9</sup>AY TST O<sup>9</sup>LA&T O<sup>9</sup>Y JG<sup>9</sup> O<sup>9</sup> P<sup>R</sup> DAVAA A<sup>9</sup>SS<sup>9</sup>ORAET SAA<sup>9</sup>LA A<sup>9</sup>CE<sup>R</sup> JAP<sup>R</sup> J4<sup>9</sup>LA SAA<sup>9</sup>AT. O<sup>9</sup>H<sup>9</sup>LA&Z DAWALA HE O<sup>9</sup>Y O<sup>9</sup>LA T<sup>G</sup>Z SGA<sup>9</sup> SHE<sup>9</sup>O<sup>9</sup> G4<sup>9</sup>AT.

§ 50. KTL TELI AAG<sup>9</sup>LAU—T<sup>G</sup>Z O<sup>9</sup>PZABA O<sup>9</sup> FGWY DAWALA P<sup>R</sup>T, O<sup>9</sup>YZ AD O<sup>9</sup>PZABA A<sup>9</sup>AW S & A<sup>9</sup>CE<sup>R</sup>T. O<sup>9</sup>YZ AD A<sup>9</sup>CE<sup>R</sup> TEL DAVAA H<sup>9</sup>HEY O<sup>9</sup>Y O<sup>9</sup> TY<sup>R</sup> T<sup>G</sup> P<sup>R</sup>AV<sup>9</sup> T<sup>G</sup>Z SGA<sup>9</sup> SHE<sup>9</sup>O<sup>9</sup> G4<sup>9</sup>AT.

D<sup>9</sup>SHAV<sup>9</sup>LA.—TEL HAAW TELI AAG<sup>9</sup>LAU, (§ 46) O<sup>9</sup> DAAG<sup>9</sup> TELI.

IPBOALAE LEVLA.

2. AWA TGAJA 48 AGW 28618 P<sup>R</sup>T?

S<sup>9</sup>LA<sup>9</sup>. 596.

TELA.		D <sup>9</sup> SS <sup>9</sup> ORA EI AAG <sup>9</sup> LAU.
D <sup>9</sup> AWLA.		596 A <sup>9</sup> CE <sup>R</sup> T.
DAVAA 48 ) 28618 ( 596 A <sup>9</sup> CE <sup>R</sup> T.		48 DAVAA.
240		
—		—
461		4768
432		2384
—		—
298		28608
288		10 O <sup>9</sup> PZABA.
—		—
10 O <sup>9</sup> PZABA.		28618 DAWALA.

NOTE 1.—The proper remainder is in all cases *less* than the divisor. If, in the course of the operation, it is at any time found to be as large as, or larger than the divisor, it will show that there is an error in the work, and that the quotient figure should be increased.

NOTE 2.—If, at any time, the divisor multiplied by the quotient figure, produces a product larger than the part of the dividend used, it shows that the quotient figure is too large, and must be diminished.

§ 49. SECOND METHOD OF PROOF.—Add together the remainder, if any, and all the products that have been produced by multiplying the divisor by the several quotient figures, and the result will be equal to the dividend, if the work is right.

§ 50. THIRD METHOD.—Subtract the remainder, if any, from the dividend, and divide this remainder by the quotient. The result will be equal to the original divisor, if the work is right.

NOTE.—The first method of proof (§ 46) is usually most convenient.

## EXAMPLES FOR PRACTICE.

2. How many times is 48 contained in 28618?

Ans. 596.

## OPERATION.

Dividend.

## PROOF BY MULTIPLICATION.

Divisor 48	) 28618	(596 Quotient.	596 Quotient.
	240		48 Divisor.
	—		—
	461		4768
	432		2384
	—		—
	298		28608
	288		10 Remainder.
	—		—
	10 Remainder.		28618 Dividend.

(3)

TELĪĪ.		SCĒĪ EĪ AĀGĪĪY.	
DĀWĀLĪ.			
DĀVĀĀ	26 5698 (219 ĀṢĀRT	52	} TST ṢSPĪṢĒĀT.
	* + 52	26	
	—	234	
	49	4	ṢPZĀBĀ.
	+ 26	—	
	—	5698	DĀWĀLĪ.
	238		
	+ 234		
	—		
	+ 4 ṢPZĀBĀ.		

\* ṢĪY ĀD SCĒĪ FĀR ṢZĀṢY EĪFĀR ĪĒĪṢ ṢĪY ĀD TST ṢSPĪṢĒĀT SCĒĪ FĀRT.

(4)

TELĪĪ.		DĀV-Ā EWC- AĀGĪĪY.	
DĀWĀLĪ.		DĀWĀLĪ.	
DĀVĀĀ	144)13824(96 ĀṢĀRT.	96	96)13824(144 DĀVĀĀ.
	1296	—	
	—	422	
	864	384	
	864	—	
	—	384	
	000	384	
		—	

	ĪSṢĀRT.	ṢṢPZĀBĀ.
5. ĀṢWṢ 3276 & 14.	234	
6. ĀṢWṢ 6205 & 17.	365	0
7. ĀṢWṢ 3051 & 21.	145	6
8. ĀṢWṢ 190850 & 25.	7634	0
9. ĀṢWṢ 218579 & 42.	5204	11
10. ĀṢWṢ 9012345 & 31.	290720	25
11. ĀṢWṢ 6717890 & 98.	68549	88
12. ĀṢWṢ 4567890 & 19.	240415	5
13. ĀṢWṢ 1357901 & 87.	15608	5
14. ĀṢWṢ 9988891 & 77.	129725	66
15. ĀṢWṢ 9999999 & 69,	144927	36

(3)  
 OPERATION.  
 Dividend.  
 Divisor 26 ) 5698 ( 219 Quotient.  
 \* + 52

—  
 49  
 + 26  
 —  
 238  
 + 234  
 —  
 + 4 Remainder.

PROOF BY ADDITION.  
 52  
 26 } Products.  
 234 }  
 4 Remainder.  
 —  
 5698 Dividend.

(4)  
 OPERATION.  
 Dividend. Quotient 96 ) 13824 ( 144 Divisor.  
 Divisor 144 ) 13824 ( 96 Quotient.

1296  
 —  
 864  
 864  
 —

PROOF BY DIVISION.  
 Dividend.  
 96  
 —  
 422  
 384  
 —  
 384  
 384  
 —

	Quotients.	Rem.
5. Divide 3276 by 14.	234	
6. Divide 6205 by 17.	365	
7. Divide 3051 by 21.	145	6
8. Divide 190850 by 25.	7634	0
9. Divide 218579 by 42.	5204	11
10. Divide 9012345 by 31.	290790	25
11. Divide 6717899 by 98.	68549	88
12. Divide 4567890 by 19.	240415	5
13. Divide 1357901 by 87.	15608	5
14. Divide 9988891 by 77.	129725	66
15. Divide 9999999 by 69.	144927	86

16. Aaws 867532 & 59.	14703	55
17. Aaws 167008 & 87.	1919	55
18. Aaws 345678 & 370.	912	30
19. Aaws 3456789567 & 987.	3502319	714
20. Aaws 8997744444 & 345.	26080418	234
21. Aaws 4500700701 & 407.	11058232	277
22. Aaws 6789003 & 1234.		95
23. Aaws 7812345 & 8007.		4060
24. Aaws 34533669 & 9999.		7122
25. Aaws 9999999 & 3333.		0
26. Aaws 47856712 & 1789.		962

27. KTJZ WWOLA H\* TASSB KTJZ DS-9A, TSSTR\*  
 AAVAB, VLJZ SPLEAA AAY DHASSA. S\*WAP. 476.

28. O-YJZ SPLEAA H\*, TASH\* DHASSA OHC4 H\* TSS-  
 Y FR SVA AAWJZ LWOLA VLZ TASSB O-SOA AAY TSE  
 DE SL. AWA TST OPHYRMA HSLMA DHBB\* PART?  
 S\*WAP. 395 TSE.

29. WMYAY OZA AAY AAYJZ LWS TASSB SPLEAA  
 SPAY DS-9A JFEGWO-A DAVYA TY VLJZ SPLEAA FLW  
 TSTA H\*OF AAY JGAA\* PART; AWA TST JEGGA H\*OF  
 PART? S\*WAP. 763 DS-9A.

30. O-SOLA WF TASSB O-YJZ KDOLA AAY TASSB O-  
 GOLA, TSSTR\* FR AAVAB DOLA\* WWOLA KT TASH\* DH-  
 ASSA; AWA TASSB OHP DHBB\* PART?  
 S\*WAP. 345 TASSB.

31. DUSH\* OOLRO-A DOLA\* LWOLA O-Y TASSB SPAY-  
 JZ SPLEAA AAY DS-9A JEGGA TSSTR\* OPHYRMA LFR-  
 AVPP O-YJZ SPLEAA AAY TASH\* DHASSA; AWA TST OOTR  
 HSLMA DHBB\* PART? S\*WAP. 389.

§ 51. DAVAA I H\*FT, H\*Z DS O-LJP TST ZL DSAJLP  
 H\*AVGT.

1. 356 DS-9A TSSTR\* AAB 10 TASH\* DHASSA AAVAB  
 AWA TST OPHMA DHBB\* PART? S\*WAP. 35 | 6.

TEAA\* 10  
 1 | 0 ) 35 6  
 35, 6 OPLAA  
 35 | 6  
 10  
 H\* ZL TASSA DSA-  
 BAP DHSS\* AAY AT,  
 AAYZ HSLMA H\*  
 O-LJP FR TST DSASSAP  
 AAVAWO-A HSLMA; O-  
 AYZ TST JEGGA FR

16. Divide 867532 by 59. 14703 55  
 17. Divide 167908 by 87. 1919 55  
 18. Divide 345678 by 379. 912 30  
 19. Divide 3456789567 by 987. 3502319 714  
 20. Divide 8997744444 by 345. 26080418 234  
 21. Divide 4500700701 by 407. 11058232 277  
 22. Divide 6789563 by 1234. 95  
 23. Divide 78112345 by 8007. 4060  
 24. Divide 34533669 by 9999. 7122  
 25. Divide 99999999 by 3333. 0  
 26. Divide 47856712 by 1789. 962  
 27. Divide three hundred and twenty-one thousand three hundred dollars equally among six hundred and seventy-five men. Ans. 476.  
 28. Four hundred and seventy-one men purchase a township containing one hundred and eighty-six thousand forty-five acres; what is the share of each? Ans. 395 acres.  
 29. A railroad, which cost five hundred and eighteen thousand seventy-seven dollars, is divided into six hundred and seventy-nine shares; what is the value of each share? Ans. 763 dollars.  
 30. Divide forty-two thousand four hundred and thirty-five bushels of wheat equally among one hundred and twenty-three men; how many bushels did each have? Ans. 345 bushels.  
 31. A prize, valued at one hundred and eighty-four thousand seven hundred and seventy-five dollars, is to be divided equally among four hundred and seventy-five men; what is the share of each? Ans. 389 dollars.

§ 51. When the divisor is one, with one or more ciphers at the right.

1. Divide 356 dollars equally among 10 men; what will each man have? Ans.  $35\frac{6}{10}$  dollars.

OPERATION.

$$1 \mid 0) 35 \mid 6$$

Quotient 35, 6 Rem.  
 Or thus,  $35 \mid 6$ .

To multiply by 10 we annex one cipher on the right of the multiplicand, which removes each figure one place to the left,





and thus makes the value denoted tenfold. Now, if we reverse the process, and cut off the right-hand figure of the dividend by a line, we remove each remaining figure one place to the right, and consequently diminish the value denoted the same as dividing by 10. The figures on the left of the line are the quotient, and the one on the right is the remainder, which may be written over the divisor, and annexed to the right of the quotient, thus,  $35\frac{6}{10}$ . Hence the share of each man is 35 | 6 dollars.

2. Divide 6439 dollars equally among 100 men; what will each man have.

OPERATION.

$$1 \mid 00) 64 \mid 39$$

Quotient 64,      39 Remainder.

Or thus, 64 | 39

If we cut off the two right hand figures of the dividend by a line we remove each of the remaining figures two places to the right, and diminish their value the same as dividing by 100. The figures of the dividend on the left of the line become the quotient, and the two on the right become the remainder. As in the foregoing example this may be written over the divisor and annexed to the quotient. Hence each man will get  $64\frac{39}{100}$  dollars.

Read sixty-four and thirty-nine one hundredths dollars. So of all numbers where the divisor is 1 with any number of naughts.

§ 52. RULE.—Write the divisor and dividend as in short division.

Cut off all the naughts from the divisor by a line.

Then cut off as many figures on the right of the dividend as there are naughts cut off from the divisor.

The figures in the dividend on the left of the separating line will be the quotient, and the figures on the right of that line will be the remainder.

EXAMPLES FOR PRACTICE.

	Quotient.	Rem.
3. Divide 6892 by 10.	689	2
4. Divide 4375 by 100.		75
5. Divide 24815 by 1000.		815



§ 53. When the Divisor has one or more naughts on the right, and is not 10, 100, &c.

1. Divide 5832 pounds of bread equally among 600 soldiers; what is each one's share?

OPERATION.

$$6 \mid 00 \ 58 \mid 32$$

Quotient 9—432 Remainder.

Or it may be expressed thus  $9\frac{432}{600}$

Read nine and four hundred and thirty-two six hundredths.

In this example we cut off from the divisor, 600, the two ciphers. Then cut off two figures (32) from the right of the dividend. Divide

58, the remaining figures of the dividend, by the remaining figure of the divisor, 6. We find that 6 is contained in 58 9 times, with 4 remaining. To the right of this remainder we annex the 32 cut off from the right of the dividend, for the true remainder. Under this remainder we place 600, the divisor. Hence each man's share of bread is 9 pounds and 432 remainder, expressed thus,  $9\frac{432}{600}$ , and read nine and four hundred and thirty-two six hundredths.

§ 54. RULE.—Cut off the naughts on the right of the divisor by a line, and cut off the same number of figures from the right of the dividend.

Then divide the remaining figures of the dividend by the remaining figures of the divisor, and annex the remainder (if there be one) to the figures cut off from the dividend. This will be the true remainder.

EXAMPLES FOR PRACTICE.

	Quotient.	Rem.
2. Divide 3594 by 80.	44	74
3. Divide 79872 by 240.	332	192
4. Divide 467153 by 700.	667	253
5. A merchant has 5100 pounds of tea and wishes to put it into 60 chests; how many pounds must he put in each chest?	Ans. 85 pounds.	

ՅԵՐՈՒՅԻ ԴԵՐՅԱԿԱՆ ԴԻՄԻՏՐՈՍ,

ԹԵՄԻՍՏՈՍԻԱՆ ԴԵՐՅԱԿԱՆ ԴԻՄԻՏՐՈՍ:

1. ԲԵՆ ԶԻՆ ԹԵՄԻՍՏՈՍԻԱՆ ԴԻՄԻՏՐՈՍ, 29  
ԴԵՐՅԱԿԱՆ ԴԻՄԻՏՐՈՍ ԻՐԷՆ, ԹԵՄԻՍՏՈՍԻԱՆ 37 ԴԵՐՅԱԿԱՆ ԴԻՄԻՏՐՈՍ  
ԻՐԷՆ ԴԻՄԻՏՐՈՍ; ԱՅՆ ԿՈՒՆ ԹԵՄԻՏՈՍԻԱՆ?

ՏԵՄԻՍՏՈՍԻԱՆ 534 ԴԵՐՅԱԿԱՆ.

2. ԸՆՏԵՆԱԿ ԹԵՄԻՍՏՈՍԻԱՆ ԴԻՄԻՏՐՈՍ 15 ԴԵՐՅԱԿԱՆ  
ԴԻՄԻՏՐՈՍ ԹԵՄԻՏՈՍԻԱՆ, ԹԵՄԻՍՏՈՍԻԱՆ 43 ԴԵՐՅԱԿԱՆ ԴԻՄԻՏՐՈՍ  
ԹԵՄԻՏՈՍԻԱՆ; ԱՅՆ ԿՈՒՆ ԹԵՄԻՏՈՍԻԱՆ? ՏԵՄԻՍՏՈՍԻԱՆ 25033 ԴԵՐՅԱԿԱՆ.

3. ԴԻՄԻՏՐՈՍ ԹԵՄԻՍՏՈՍԻԱՆ 47 ԹԵՄԻՏՈՍԻԱՆ 4M 57 ԹԵՄԻՏՈՍԻԱՆ ԴԻՄԻՏՐՈՍ  
ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ, ԹԵՄԻՍՏՈՍԻԱՆ 37 ԹԵՄԻՏՈՍԻԱՆ ԴԻՄԻՏՐՈՍ  
ԹԵՄԻՏՈՍԻԱՆ; ԱՅՆ ԿՈՒՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ?

ՏԵՄԻՍՏՈՍԻԱՆ 940 ԹԵՄԻՏՈՍԻԱՆ.

4. ԴԻՄԻՏՐՈՍ ԹԵՄԻՍՏՈՍԻԱՆ 29 ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ, 17  
ԴԵՐՅԱԿԱՆ ԴԻՄԻՏՐՈՍ ԻՐԷՆ ԹԵՄԻՏՈՍԻԱՆ, 76Z ԹԵՄԻՏՈՍԻԱՆ ԴԻՄԻՏՐՈՍ  
ԹԵՄԻՏՈՍԻԱՆ ԻՐԷՆ; ԱՅՆ ԿՈՒՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ ԻՐ  
ԹԵՄԻՏՈՍԻԱՆ ԴԻՄԻՏՐՈՍ? ՏԵՄԻՍՏՈՍԻԱՆ 873 ԴԵՐՅԱԿԱՆ.

5. ԹԵՄԻՏՈՍԻԱՆ 17 ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ 15 ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ  
ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ, 46 ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ, 28 ԹԵՄԻՏՈՍԻԱՆ  
ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ ԻՐԷՆ, 16 ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ  
ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ, 107 ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ;  
ԱՅՆ ԿՈՒՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ? ՏԵՄԻՍՏՈՍԻԱՆ 4257 ԹԵՄԻՏՈՍԻԱՆ.

6. ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ 78 ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ 27  
ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ; ԱՅՆ ԿՈՒՆ ԹԵՄԻՏՈՍԻԱՆ?

ՏԵՄԻՍՏՈՍԻԱՆ 2106 ԹԵՄԻՏՈՍԻԱՆ.

7. ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ, ԹԵՄԻՏՈՍԻԱՆ 223  
ԹԵՄԻՏՈՍԻԱՆ, 27Z ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ; ԱՅՆ  
ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ? ՏԵՄԻՍՏՈՍԻԱՆ 61 ԹԵՄԻՏՈՍԻԱՆ.

8. ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ 7 ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ  
ԹԵՄԻՏՈՍԻԱՆ 9 ԴԵՐՅԱԿԱՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ, ԹԵՄԻՏՈՍԻԱՆ  
ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ; ԱՅՆ ԿՈՒՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ  
ԹԵՄԻՏՈՍԻԱՆ? ՏԵՄԻՍՏՈՍԻԱՆ 37 ԴԵՐՅԱԿԱՆ.

9. ԹԵՄԻՏՈՍԻԱՆ 760 ԹԵՄԻՏՈՍԻԱՆ 47 ԴԵՐՅԱԿԱՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ  
ԻՐԷՆ, ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ 171 ԹԵՄԻՏՈՍԻԱՆ 56 ԴԵՐՅԱԿԱՆ ԹԵՄԻՏՈՍԻԱՆ  
ԹԵՄԻՏՈՍԻԱՆ, ԹԵՄԻՏՈՍԻԱՆ 275 ԹԵՄԻՏՈՍԻԱՆ, 37 ԴԵՐՅԱԿԱՆ ԹԵՄԻՏՈՍԻԱՆ  
ԹԵՄԻՏՈՍԻԱՆ, ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ 75  
ԴԵՐՅԱԿԱՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ; ԱՅՆ ԿՈՒՆ ԹԵՄԻՏՈՍԻԱՆ ԹԵՄԻՏՈՍԻԱՆ  
ԹԵՄԻՏՈՍԻԱՆ? ՏԵՄԻՍՏՈՍԻԱՆ 7581 ԴԵՐՅԱԿԱՆ.

## MISCELLANEOUS EXAMPLES,

## INVOLVING THE FOREGOING RULES.

1. Allen French bought 73 hogsheads of molasses at 29 dollars per hogshead, and sold it at 37 dollars per hogshead; what did he gain?      Ans. 584 dollars.

2. Benjamin Thomas bought 896 acres of wild land at 15 dollars per acre, and sold it at 43 dollars per acre; what did he gain?      Ans. 25088 dollars.

3. Newton Gage sold 47 bushels of corn at 57 cents per bushel, which cost him only 37 cents per bushel; how many cents did he gain?      Ans. 940 cents.

4. A tavern keeper bought 29 loads of hay at 17 dollars per load, and 76 cords of wood at 5 dollars a cord; what was the amount of the hay and the wood?      Ans. 873 dollars.

5. I bought 17 yards of cotton cloth at 15 cents per yard, 46 gallons of molasses at 28 cents per gallon, 16 pounds of tea at 76 cents a pound, and 107 pounds of coffee at 14 cents a pound; what was the amount of my bill?      Ans. 4257 cents.

6. A man traveled 78 days, and each day he walked 27 miles; what was the length of his journey?      Ans. 2106 miles.

7. A man sets out from Boston to travel to New York, the distance being 223 miles, and walks 27 miles a day for 6 days in succession; what distance remains to be travelled?      Ans. 61 miles.

8. John Peabody bought of Eli Ames 7 yards of his best broadcloth at 9 dollars per yard, and in payment he gave Ames a one hundred-dollar bill; how many dollars must Ames return to Peabody?      Ans. 37 dollars.

9. I bought 760 acres of land at 47 dollars per acre, and sold John Emery 171 acres at 56 dollars per acre, James Smith 275 acres at 37 dollars per acre, and the remainder I sold to Joseph Kimball at 75 dollars per acre; how much did I gain by my sales?      Ans. 7581 dollars.

10. O'ZPƏLİ QƏLƏFƏ 68255 DƏ-ƏƏ SƏGƏWƏT; ƏƏYƏ  
ƏD TƏT ƏƏVƏ 365 ƲƏƏ DƲRƏMİ FƏRT; ƏWƏ TƏT JƏGƏƏ  
HƏFƏMƏ ƲƏƏ DƲRƏMİ FƏRT? SƏƏ. 187 DƏ-ƏƏ.

11. WƏ HƏ SƏ DƲGƏY TƏFƏ FƏRT; TƏƏ 14<sup>+</sup> TƏE  
FƏY, ƏƏYƏ 12 DƏ-ƏƏ DƏJƏ ƲƏƏ RƏ FƏRT; WƏƏZ 108  
TƏE FƏY, ƏƏYƏ 10 DƏ-ƏƏ SƏGƏWƏY ƲƏƏ RƏ FƏRT;  
TƏWZ TƏ TƲƏLƏFƏY 18 DƏ-ƏƏ İTJƏRƏY ƲƏƏ RƏ FƏRT;  
ƏWƏ TƏT DƲLƏYƏT? SƏƏ. 1188 DƏ-ƏƏ.

12. TƲƏLƏFƏY 17 HƏRƏ DƏ DƏƏT, 6 DƏ-ƏƏ İTJƏRƏY  
ƲƏƏ SƏRƏT, 36Z HƏRƏ PƏY 3 DƏ-ƏƏ İTJƏRƏY ƲƏƏ  
SƏRƏT, 29Z HƏRƏ GƏT 7 DƏ-ƏƏ ƲƏƏ SƏRƏT; ƏWƏ TƏT  
İTJƏRƏT? SƏƏ. 413 DƏ-ƏƏ.

13. İH FƏ SƏY 17 DƏ QƏZƏƏ 3 DƏ-ƏƏ SJƏY ƲƏƏ  
FƏRT, 19Z GƏ İSƏYRƏ 27 DƏ-ƏƏ SJƏY ƲƏƏ FƏRT, 47  
GƏ İHƏƏƏƏƏ 57 DƏ-ƏƏ SJƏY ƲƏƏ FƏRT; SƏRZ TƏT  
SƏLƏT 3700 TƏJƏRƏT; ƏWƏ TƏT QƏYƏT? SƏƏ. 457 PƏ-ƏƏ.

14. DƲGƏY 17 TƏRƏ İGƏ 32 DƏ-ƏƏ DƏJƏY ƲƏƏ  
RƏ FƏRT. DƲƏLƏFƏY 7 TƏRƏ 29 DƏ-ƏƏ İTJƏRƏY ƲƏƏ  
RƏ FƏRT, 8Z TƏRƏ 36 DƏ-ƏƏ İTJƏRƏY ƲƏƏ RƏ FƏRT,  
GƏZƏƏƏZ TƏT 25 DƏ-ƏƏ İTJƏRƏY ƲƏƏ RƏ FƏRT. İPƏ  
DƲLƏYƏT DƲƏFƏR, ƏWƏ DƏ TƏT? SƏƏ. 3 DƏ-ƏƏ GƏTƏT.

15. GƏ VƏ QƏY 28 TƏƏM DƏƏ DƏTƏ 5 DƏ-ƏƏ QJƏ-  
Y ƲƏƏ ƏM FƏRT; 10Z TƏƏM QƏFƏT, GƏZƏƏƏZ QƏ-  
LƏFƏY 9 DƏ-ƏƏ DƏJƏRƏY ƲƏƏ ƏM FƏRT. QƏYƏTƏM,  
HƏR QƏFƏT, DƏ ƏWƏ TƏT? SƏƏ. 22 DƏ-ƏƏ QƏYƏT.

16. SƲ QƏM QƏ TƏT JƏGƏƏ HƏFƏMƏ 386 TƏE SƏƏ 76  
DƏ-ƏƏ JƏGƏƏ ƏY, ƲƏƏ RƏ FƏRT, HƏR 968 JƏƏ İRƏ  
ƏƏ GƏSƏ TƏM 25 DƏ-ƏƏ JƏGƏƏ ƏY ƲƏƏ FƏR RƏH?  
SƏƏ. SƏƏ 5136 DƏ-ƏƏ QƏLƏM.

17. WƏƏ GƲYƏ SƏLƏFƏY GƏ İH SƏY 169 TƏRƏ  
DƏ 7 DƏ-ƏƏ SƏGƏLƏY ƲƏƏ RƏ FƏRT, DƏ 116 TƏRƏ DƏ-  
Ə DƏ 6 DƏ-ƏƏ SƏGƏLƏY ƲƏƏ FƏR SƏRƏT, 37Z SƏRƏT  
PƏY 5 DƏ-ƏƏ ƲƏƏ SƏRƏT. ƏƏYƏ İH QJƏRƏ GƲYƏ 144  
DƏ-ƏƏ DƏ FƏRT. 23 TƏƏM DƏƏ QƏLƏY 4 DƏ-ƏƏ SƏGƏ-  
LƏY ƲƏƏ ƏM FƏRT. ƏWƏ TƏT DƏ DƏJƏRƏ GƲYƏ?  
SƏƏ. 1828 DƏ-ƏƏ.

10. The erection of a factory cost 68,255 dollars; supposing this sum to be divided into 365 shares, what is the value of each share?      Ans. 187 dollars.

11. I bought two lots of wild land; the first contained 144 acres, for which I paid 12 dollars per acre; the second contained 108 acres, which cost 15 dollars per acre. I sold both lots at 18 dollars per acre; what was the amount of gain?      Ans. 1188 dollars.

12. I sold 17 cords of oak wood at 6 dollars per cord, 36 cords of maple at 3 dollars per cord, and 29 cords of hickory at 7 dollars per cord. What was the amount received?      Ans. 413 dollars.

13. James Gale purchased 17 sheep for 3 dollars each, 19 cows at 27 dollars each, and 47 oxen at 57 dollars each. He sold his purchase for 3700 dollars. What did he gain?      Ans. 457 dollars.

14. I purchased 17 tons of copper at 32 dollars per ton. I sold 7 tons at 29 dollars per ton, 8 tons at 36 dollars per ton, and the remainder at 25 dollars per ton. Did I gain or lose, and how much?      Ans. 3 dollars, loss.

15. John Smith bought 28 yards of broadcloth at 5 dollars per yard; and having lost 10 yards, he sold the remainder at 9 dollars per yard. Did he gain or lose, and how much?      Ans. 22 dollars, gain.

16. Which is of the greater value, 386 acres of land at 76 dollars per acre, or 968 hogsheads of molasses at 25 dollars per hogshead?

Ans. The land by 5136 dollars.

17. Robert Hazel sold to John James 169 tons of timber at 7 dollars per ton, 116 cords of oak wood at 6 dollars per cord, and 37 cords of maple wood at 5 dollars per cord; James has paid Hazel 144 dollars in cash, and 23 yards of cloth at 4 dollars per yard; what remains due to Hazel?      Ans. 1828 dollars.