Function & Variables (1B)
#include <stdio.h>

int main(void)
{ // block 1
    int a = 10;
    printf("blk1: a=%d\n", a);
    // printf("blk1: b=%d\n", b); XXX
    // printf("blk1: c=%d\n", c); XXX

    { // block 2
        int b = 20;
        printf("blk2: a=%d\n", a);
        printf("blk2: b=%d\n", b);
        // printf("blk2: c=%d\n", c); XXX
        { // block 3
            int c = 30;
            printf("blk3: a=%d\n", a);
            printf("blk3: b=%d\n", b);
            printf("blk3: c=%d\n", c);
        }
    }

    { // block 4
        int b = 22;
        printf("blk4: a=%d\n", a);
        printf("blk4: b=%d\n", b);
        // printf("blk4: c=%d\n", c); XXX
    }
}

&a= 0xbfff505c a= 100
&x= 0xbfff5040 x= 100
&x= 0xbfff5040 x= 200
&a= 0xbfff505c a= 200
```c
#include <stdio.h>

int func(int x) {
    printf("&x= %p x= %d \n", &x, x);
    x *= 2;
    printf("&x= %p x= %d \n", &x, x);
    return x;
}

void main(void) {
    int a = 100;
    printf("&a= %p a= %d \n", &a, a);
    a = func( a );
    printf("&a= %p a= %d \n", &a, a);
}
```

```
&a= 0xbfff505c a= 100
&x= 0xbfff5040 x= 100
&x= 0xbfff5040 x= 200
&a= 0xbfff505c a= 200
```
```c
#include <stdio.h>
#include <stdlib.h>
#include <math.h>

void func( void ) {
    static int ii = 0;
    ii++;
    printf("ii=%d \n", ii);
}

int main(void) {
    int i;
    for (i=0; i<10; ++i) {
        func();
    }
}
```
#include <stdio.h>

int func(int x) {
    printf("&x= %p x= %d \n", &x, x);
    x *= 2;
    printf("&x= %p x= %d \n", &x, x);
    return x;
}

void main(void) {
    int a = 100;
    printf("&a= %p a= %d \n", &a, a);
    a = func( a );
    printf("&a= %p a= %d \n", &a, a);
}

&a= 0xbfff505c a= 100
&x= 0xbfff5040 x= 100
&x= 0xbfff5040 x= 200
&a= 0xbfff505c a= 200
```c
#include <stdio.h>
#include <stdarg.h>

int func(int n, ...) {
    va_list vl;
    va_start (vl, n);

    printf("va_arg(vl, char)=%c 
", va_arg(vl, int));
    printf("va_arg(vl, char)=%c 
", va_arg(vl, int));
    printf("va_arg(vl, int)=%d 
", va_arg(vl, int));
    printf("va_arg(vl, int)=%d 
", va_arg(vl, int));
    printf("va_arg(vl, double)=%f 
", va_arg(vl, double));

    va_end(vl);
}

int main() {
    func(5,'a', 'b', 100, 200, 3.14);
}
```

va_arg(vl, char)=a
va_arg(vl, char)=b
va_arg(vl, int)=100
va_arg(vl, int)=200
va_arg(vl, double)=3.140000