1. Translate the following IA32 assembly snippet into C code. Start by translating to C code with goto, then rewrite it to eliminate the goto statements.

```
movl $101, -4(%ebp)
movl $-22, -8(%ebp)
movl -4(%ebp), %eax
addl %eax, %eax
addl -8(%ebp), %eax
movl -8(%ebp), %eax
imull -12(%ebp), %eax
movl -12(%ebp), %eax
jmp .L5
.L2:
movl -8(%ebp), %eax
subl %eax, -4(%ebp)
.L5:
# end
```

The C program has variables x, y, and z, stored at the following memory locations:

x: M[ebp] - 12
y: M[ebp] - 8
z: M[ebp] - 4
2. Translate the following C code snippet to IA32 assembly. Start by rewriting the C code to replace the while loop with goto statements.

```c
int hamster, bunny, gerbil;
hamster = 17;
bunny = 99;
gerbil = hamster - bunny;
while(hamster < bunny){
    hamster *= 3;
    if(gerbil < 128){
        gerbil += hamster;
    }
}
```

You may assume the variables are stored at the following memory locations:

- hamster: M[%ebp] - 12
- bunny: M[%ebp] - 8
- gerbil: M[%ebp] - 4