

Quiz 2  
CMPE 364  
Spring 2017

Name:  
Student ID:

Consider the following C-like pseudo-code:

```
f = 0;
for(i = 1; i <= N; i++) {
    f = f + 5 * i;
}
```

Convert this to ARM assembly. You may assume that N is stored in r0, f in r1, and i in r2. You may not use any of the multiply instructions. (Such as MUL, SMUL, etc.)

Potential solution. (Note that there are many possible correct solutions.)

```
mov r0, #5
```

```
mov r1, #0
mov r2, #1
```

```
loop:
    cmp r2, r0
    bgt done
    add r1, r1, r2, LSL #2
    add r2, r2, #1
    b loop
done:
```