

# CmpSci 201

## Lab 2

In this lab, you'll be studying looping and conditional structures in assembly. For the following assignments you may assume that  $i$ ,  $j$ , and  $k$  are 32-bit integers that have been assigned to R0, R1, and R2 respectively.

Convert the following Java code fragments to arm assembly. You may use predication or branches as you wish.

1. 

```
if(i > j)
{
    k = i + 2;
}
j = k + 2;
```
2. 

```
for(i = 0 ; i < 17 ; i++)
{
    j = i + k;
}
k++;
```
3. 

```
while(i < (k - 1))
{
    i++;
}
k = i;
```

### Submitting your answers:

To submit your answers, email the code to [trekp@cs.umass.edu](mailto:trekp@cs.umass.edu) with the subject line set to: "CS201 Lab 2, <your name>", where <your name> is replaced with your actual name. Attach your code as files named `prob1.s`, `prob2.s`, and `prob3.s`.