# CSCI 2330 – Fork Exercises

Consider the following snippet of code using **fork:**

```
1       int c = 5;
2       pid_t f = fork();
3       if (f == 0) {
4           c += 5;
5       } else {
6           f = fork();
7           c += 10;
8           if (f) {
9               c += 10;
10          }
11      }
12      fork();
13      printf("%d\n", c);
```

1. Including the initial process that starts executing the program, how many processes are created when this program is run?

2. Draw a picture of the hierarchical process tree that is created by running this program (assuming that all processes have been created and are still running). Remember that **fork** returns 0 in the child and the (nonzero) child PID in the parent. Your tree should have the number of nodes you determined in Question 1.

3. What are two different possible outputs of running this program? (you should be able to determine this without actually executing the program!)

Note: there are more than two possibilities!