CS111 Recitation 5

Your peer leader will leave time at the end to review for the midterm and answer questions. The midterm will cover Binary Numbers, Truth Tables/Boolean Expressions, Basic Java Syntax, Variable Typing, Arithmetic Operations, Conditionals, Loops (inc. nested loops)

Exercise 1:
What are the values of the variables a, b, c, and d at each point in the code? Will it compile?

```
        int a = 2;
        int b = 0;
        if(a == 2) {
(1)         int c = 1;
(2)         c ++;
        }
(3)     a = 3;
        while(a > 0) {
            int d = 2;
            b++;
            a--;
(4)         d++;
        }
(5)     System.out.println(a);
(6)     c = 2;
```

Exercise 2a:
Write a program that draws a pyramid of a height specified by the user. So if the user specifies 5, the pyramid will be:

```
    *
   ***
  *****
 *******
*********
```

Exercise 2b:
Draw the same pyramid horizontally. So for n = 5, the pyramid looks like this:
```
*
* *
* * *
* * * *
* * * * *
* * * *
* * *
* *
*
```

Exercise 3:
Write a program that asks the user for an integer, and then outputs the digits backwards line by line. So an example run would be:
enter a number: 321
1
2
3

Exercise 4:
Write a program that asks the user for 2 integers and outputs the greatest common factor.