CS 161 Recitation

Quiz #4 TA Guide

1. (3 pts) Describe what each of the loops below print?
    1.1.
```
for(int i = 0; i < 5; i++)
      cout << i << endl;
```
   This will print 0-4. (1 pt)
    1.2.
```
int i = 0, x = 0;
for(i = 0; x < 10; i++)
      cout << i << endl;
```
   This will infinitely loop and continue to print i. (1 pt)
    1.3.
```
for(int i = 0; i < 8 && i > 0; i++)
    cout << i << endl;
```
   This will not print anything. (1 pt)

2. (5 pts) Convert the following for loop into a while loop. Be VERY careful about what you write for the syntax!!!

```
for(int i = 0; i <= 10; i++)
        cout << i*10 << endl;
```

   int i=0; (1 pt)
   while(i<=10) { (1 pt)
     cout << i*10 << endl; (1 pt)
     i++; (1 pt)
   } //Need curly braces (1 pt)

3. (2 pts) What will the following code print? Explain why.

```
int choice=2;

if(choice !=1 || choice !=2)
   cout << "yes" << endl;
else
   cout << "no" << endl;
```

   This will print yes. (1 pt)
   This will always print yes because it will always satisfy one condition as true for any number. (1 pt)

4. (2 pts) Extra Credit: What will the following code print? Explain why for credit:

```
int n = 6;
if( n > 3 ){
    int n = 4;
    // n is decremented AFTER the value is printed.
    cout << n-- << endl; ← notice the post decrement!
}
for(int n = 0; n < 1; n++)
    cout << n << endl;
    cout << n << endl;
```

This will print (1 pt):

4

0

6

The original n is never altered. The n within the if statement is printed before it is decremented. The **for** loop only runs once with n as 0, and the last cout is not within the for loop. (1 pt)