

Fall 2014 COP 3223 Section 4
Exam 2 Free Response Answer Sheet

Last Name: _____, **First Name:** _____

1) (12 pts) Write a function that calculates and returns the n^{th} Triangle Number, where n is the input parameter. You may assume that n is guaranteed to be positive. Note that n^{th} Triangle Number is the sum of the first n positive integers. For example, the 5^{th} Triangle Number is 15, since $1 + 2 + 3 + 4 + 5 = 15$. (Note: You will get **no** credit on this question if you put a `printf` in this function.) Please fill out the function definition provided below:

```
int triangle(int n) {
```

```
}
```

2) (16 pts) The file “numbers.txt” has exactly 10000 non-negative integers in it, one per line. Complete the program below so that it opens the file, reads in all the integers, determines how many of those integers end in each digit, prints this information out, and closes the file. (See the document camera projection for a sample for clarification.)

```
#include <stdio.h>
```

```
int main() {
```

```
    return 0;  
}
```

