Kerry Ojakian's CSI 31 Class Due Date: In Dropbox by Thursday October 19 by 11pm

HW #2

General Instructions:

- Homework must be put in a your dropbox folder in a subfolder HW02 of Homework. A complete homework will consider of 4 files indicated below, all put right in HW02.
- You will lose points if you do not follow the instructions (sorry!)

Written Problems

Put all these problems into ONE PDF file

1. From the online Sweigart book chapter 2 questions: 4, 8, 9, 13

(for the programming questions 9 and 13, just include these in your ONE PDF file, typed or neatly handwritten)

2. Without typing the following program into the computer, determine what the value of "s" once the program is done running. Justify your answer.

```
s = 0
for k in range(1,10000000000000000000): # 1 followed by 20 zeros.
    if (k % 10000 == 0):
        s = s + 1
```

Programming Problems

Each program should be a separate .py text file. The first program labeled "prob1.py", the second "prob2.py", etc.

- 1. Write program asks the user for integers till a zero is inputed and then it finds the average of all the numbers (not including the zero). For example if the user enters: 3, 4, 3, 4, 0, then the program should print out 3.5.
- 2. Write a program that gets an integer input (say n) from the user and then prints out the result of the sum: $1+2+3+\cdots+2n$. For example: If the user inputs 2 then your program should print out 10.
- 3. Write a program that prompts the user for two points on the plane and then prints out the slope of the line connecting these two points. You must account for the possibility that the line is vertical and so has an undefined slope. Note that this question is leaving a number of details up to you! You decide how to interact with the user in terms of getting the user's input and displaying the output. Make it clear!