LAB #5
Some Graphics in Python using Turtle

1. In this course, all our labs involve paired programming. You do not have to keep the same partner for each lab, but you MUST work with someone in each lab. Two of the ten points for each lab is based on following the paired programming model, as specified in the student handout, and turning in the pair programming evaluation with each lab.

2. At this time, you need to pair with someone in the lab, and finish the rest of the lab as a pair.

3. If you haven’t done so already, take your design from lab #4, and use it to modify your buoyance program so that the user must enter a 1 to continue or 0 to quit. Provide a message to the user if she/he enters an invalid number, i.e. the number is not a 1 or 0. For instance, if the user enters a number other than 1 or 0, then the program must give an error message and re-prompt the user for a 1 or 0 to continue or quit.

At this point, you need to get checked off by a TA for 2 points.

4. Now, we are going to learn to read Python documentation to create a graphical program using the turtle library. http://docs.python.org/2/library/turtle.html

Another resource is:
http://openbookproject.net/thinkcs/python/english3e/hello_little_turtles.html

You can also use your book as a resource. The turtle graphics is in Chap. 6.2.

You need to open a New Window in the Python IDLE, and practice writing some of the examples in the documentation. You must have these following statements in your program, as a bare minimum.

import turtle         #bring in the turtle library

window = turtle.Screen()  #create a variable for the window
my_turtle = turtle.Turtle() #create a variable for your turtle

window.mainloop()    #wait for the user to close the window

Now play with changing the background color of the screen, the shape and color of your turtle and pen, and learn how to move the turtle around the screen.

You need to show the lab TA your plan to receive 2 points for the lab!!!
5. Use for loops to make a turtle draw these regular polygons (regular means all sides the same lengths, all angles the same):
   a. An equilateral triangle
   b. A square
   c. A hexagon (six sides)
   d. An octagon (eight sides)

   You need to show the lab TA your plan to receive 4 points for the lab!!!

6. You will have to turn in your pair programming evaluations through the TEACH website. At this point, you need to download and fill out the survey.

   Now, upload your survey and presentation file to the TEACH website for the last 2 points.

   Make sure you sign-up with a TA for demoing/explaining your Assignment #5 next week. This is how all assignments are graded in the course, and if you sign-up and do not make your appointment without rescheduling, then you will be penalized 50 points!!!