CS 100
Homework 03

Due Date:

Do all of the items below and **submit** a text file created with the IDLE editor (or other editor) with the extension *.py* via Canvas. If you run into a problem, post to Canvas describing where you ran into trouble or email your instructor or classroom assistant, or ask your question during recitation hours. If you know the answer to someone's question on Canvas, post a response. You get course credit for asking and answering questions in Canvas.

- Read the first section of Chapter 4 (Case Study: Interface Design): "The turtle module" in the textbook.
- In the Python editor IDLE, create and save a Python file that is named, if your name is Harry Houdini, for example, *HW3_HarryHoudini.py* and begins with a comment containing your name, class and section, the posting date and number of the homework assignment. Use either a block comment or one-line comment style. Example:

```
"""
Harry Houdini
CS 100 2018S Section 004
HW 03, January 29, 2018
"""
```

or

```
# Harry Houdini
# CS 100 2018S Section 004
# HW 03, January 29, 2018
```

1. Write code that uses turtle graphics to draw an equilateral triangle, a square and a regular pentagon, each with side length 100.
2. Write code that uses turtle graphics to draw four concentric circles of radius 50, 100, 150 and 200.
3. Write code that uses the Python math module to compute and print out the values of
   a. 100!
   b. the log (base 2) of 1,000,000
   c. the greatest common divisor of 63 and 49

Hint

There is a description of each function in the math module in the Python documentation, which you can access through IDLE from the `Help` menu as follows:

```
Help → Python Docs → Python Module Index → math
```

If you are using an alternate IDE, visit https://docs.python.org/3/library/math.html to browse the documentation online, or download a copy of your own.