**Name: Session:**

**Programming I**

**Graphics with Pygame in Python**

**Lab Exercise 10.31.2022**

**Print out your source code, attach to this sheet and turn-in.**

1. We talked about drawing circles and rectangles. Pygame also has methods to drawlines, arcs, ellipses, and polygons. Try using these to draw some other shapes in a program. You can find out more about these methods in the Pygame documentation. If you don’t have Internet access, you can also find it on your hard drive (it’s installed with Pygame) at the following location:

C:\Python36\Lib\site-packages\pygame\docs\index.html

You can also use Python’s help system. Start IDLE and type the following:

>>> import pygame

>>>help()

help>pygame.draw

You’ll get a list of the different draw methods and some explanation for each one.

1. Today you will be modifying some existing programs. These can be found on the server:

\\Ada\Data Files\Programming I\Lab Exercise 10.27.2022

**DO NOT RUN THESE FILES OFF OF THE SERVER. COPY THEM TO YOUR LOCAL MACHINE**

1. Open graphics1.py. Edit the file to make a green rectangle with a red circle.
2. Open graphics2.py. Edit the file to make the rectangles “filled”.
3. Open graphics3.py. Edit the file to plot both the sine and cosine functions
4. Open graphics4.py. Edit the file to plot the maple leaf with a variety of line thicknesses.
5. Open graphics5.py. Edit the file to change the speed of the bouncing ball.
6. Open graphics6.py. Edit the file to make the beach ball bounce of an invisible wall one ball diameter from the actual wall (edge of window).
7. Open graphics7.py. Edit the file to have a bouncing red circle instead of the beach ball.