**Name: Session:**

**Programming I**

**Lab Exercise 12/3/2024**

**Building a Basic Drawing Package**

In this exercise we will be building a basic drawing package. The design of our package will be such that it will contain a Canvas class to draw on as well as a GeometricObject base class which will be used to build the Point, Line, Rectangle, Circle, and Polygon classes. All classes will contain constructor methods.

The Canvas class will have draw and freeze methods contain turtle, screen, width, and height properties. The GeometricObject class will have lineColor and lineWidth properties as well as getColor, getWidth, setColor, setwidth and \_draw methods.

The Point, Line, Rectangle, Circle, and Polygon classes in addition to their properties of points, center, radius all have their own \_draw method. Note: \_draw is called by the Canvas objects draw method.

On the server, I have provided you with two files; drawing.py and graphicsTest.py. The drawing.py file is a module that contains all of the classes. Additionally, I have provided individual class files to aid in testing.

Your task is to write the \_draw methods for the Point, Line, Rectangle, Circle and Polygon classes. Read the class documentation carefully for some hints on how to do this.

When you get everything working, print a screenshot of the graphic that is drawn and attach to this sheet.