Lab 10: Inheritance with Shapes

Instructions: In this lab we demonstrate the basics of Inheritance–a powerful and often used feature of Object Oriented languages such as Java. A classic example is deriving shapes from a Shape class. In this exercise first create and implement a Shape2D class and then three geometric 2D shapes: Circle, RightTriangle, and Rectangle. Each class shall have the following functions: double getArea(), double getCircumference, and int getNumberOfAngles(). These functions should be derived from Shape2D and the getNumberOfAngles() shall be final (meaning that Circle, Right-Triangle, and Rectangle cannot override getNumberOfAngles().)

Write some test cases:
Create some test cases that you believe would cover all aspects of your code. We will create some during class.

How to turn in:
Turn in via GitHub. Ensure the file(s) are in your lab10 directory and push via IntelliJ (VCS ↑) OR use the command line:

- $ git add <files>

- $ git commit

- $ git push

Due Date: October 22, 2015 2359

Teamwork: No teamwork, your work must be your own.