

## AP Computer Science

### Chapter 9 (Inheritance) Assignment

Write an inheritance class hierarchy for classes Quadrilateral, Trapezoid, Parallelogram, Rectangle and Square. Use Quadrilateral as the superclass of the hierarchy.

Use our Point class (but using doubles for x and y) to represent the vertices in each shape. Each shape should have four Points as its private instance variables – do NOT use eight doubles!

Assume the points will be input from the bottom-left vertex going counter-clockwise. See the given test file!



Make the hierarchy as deep (i.e., as many levels) as possible.

Each class (except Quadrilateral) should have an area and perimeter method.

**YOU MAY WANT TO CREATE HELPER METHODS TO CALCULATE THINGS LIKE THE LENGTH, WIDTH, HEIGHT, BASE, etc... HINT HINT!**

**Your files must work with the given test file and match the output screenshot.**

This project is due by Friday, March 19<sup>th</sup> at 11:59pm. You will upload *\*only\** the final screenshot of your working project, being sure to include your name as specified in the code.

Yes, partial credit will be given if you do not have it exactly correct.