COSC 603

Software Maintenance & Testing

Spring 2016

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Task 3 - ***For this task, briefly describe what the error was and how you corrected it. Also, provide the source code for your improved getDiagonal() and getArea() methods.***

In task 3, RectangleTest.java failed because of a bug in the Point.java class, the constructor was initializing all x values of the points the y values that were entered. An exampling of this was with a point with the values x = 2.0 and y = 4.0. The point constructor would result in creating a point with the values x = 4.0 and y = 4.0 instead of using x = 2.0 and y = 4.0. In order to correct this problem, I just had to make the point constructor in Point.java to initialize x values of points with x not y.

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\* This calculates the area of a rectangle and returns it as a double.

\*/

**public** Double getArea() {

**double** width;

**double** height;

**double** area;

width = Math.*abs*(p2.x - p1.x);

height = Math.*abs*(p2.y - p1.y);

area = width \* height;

**return** area;

}

/\*

\* This calculates the diagonal of a rectangle and returns it as a double.

\*/

**public** Double getDiagonal() {

**double** widthSquared;

**double** heightSquared;

widthSquared = Math.*pow*((p2.x - p1.x), 2);

heightSquared = Math.*pow*((p2.y - p1.y), 2);

**double** diagonal;

diagonal = Math.*sqrt*(widthSquared + heightSquared);

**return** diagonal;

}