Chapter 4 programming

4.30

For 4.30 I was able to just subtract the two values to get the distance between them.

4.33

For 4.33 I utilized very similar code to 4.30 and also added a Shape.java class.

4.27

For this I just added an if statement that checks if the value is less than 0. If it is, it just throws new IllegalArgumentException.

4.47

For 4.47 I created two instance variables in the shape class and made the putShapeHere method into a setter. Then I just used a^2 + b^2 = c^2 to solve for the distance.

```
PS F:\College Classes\CS 2420\CS-2420>  f:; cd 'f:\College Classes\CS 2420\CS-2420'; & 'C:\Program Files\Java\jre1.8.0_351\bin\java.exe'
7f43a5472d4a90617\redhat.java\jdt_ws\CS-2420_e9d974d1\bin' 'Assignment_04_Review_Tester'
Testing 4.30 - Implement Comparable<Circle> in the Circle class
Finished testing 4.30
Testing 4.33 - Implement Comparable<Square> in the Square class
Finished testing 4.33
Testing 4.27 - modify the constructors to throw an IllegalArgumentException when the parameters are negative
Finished testing 4.27
Starting tests for 4.47 (Adding Shape.distance to the shape heirachy)
Ending tests for 4.47
PS F:\College Classes\CS 2420\CS-2420>
```