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Perimeter Assignment: Part One

Introduction

In this assignment, you will complete the `PerimeterAssignmentRunner` class to calculate lots of interesting facts about shapes. This class has been started for you in the BlueJ project called `PerimeterAssignmentRunner` (**this is the same project file that we were looking at in the previous reading, so feel free to open the one you downloaded for the last reading**). This project also contains several data files. In addition, you will need to look at the documentation for the `Shape` class and the `Point` class, which we went over in the last reading.

Our goals for this exercise are to:

1a. Complete writing the method `getNumPoints` that has one parameter `s` that is of type `Shape`. This method returns an integer that is the number of points in `Shape s`.

1b. Add code in the method `testPerimeter` to call `getNumPoints` and to print the result.

2a. Complete writing the method `getAverageLength` that has one parameter `s` that is of type `Shape`. This method returns a number of type `double` that is the calculated average of all the sides' lengths in the `Shape S`.

2b. Add code in the method `testPerimeter` to call the method `getAverageLength` and to print out the result.

Discussion

Complete the method `getNumPoints`

For this section, we need to complete the code for the method `getNumPoints`. We are instructed that the method has one parameter, `s`, that is a `Shape`-type object. This makes sense with the other code we've seen in this project, as the only shape-type object we've created is, in fact, named `s`. To understand how to show what parameter a method has, check out the code review we did in the last reading. (**Hint:** the `getPerimeter` method also has a parameter named `s` that is of type `shape`, but the `getPerimeter` method returns a `double`-type variable, whereas we want `getNumPoints` to return an `int`-type variable).