**Programming Assignment**

You are given fully implemented classes Circle and Rectangle. Each has a computeArea method, which returns the area of the figure according to the usual mathematical formulas. In the DataMiner class, a raw list is provided, named objects, and the main method calls populateList in order to populate this list with instances of Rectangle and Circle.

There is one unimplemented method in DataMiner: computeAverageArea. This method should compute the average area of the figures in the objects list.

For this problem you must implement computeAverageArea *using polymorphism.* This implies that your implementation *does not check* the runtime types of the figures in the objects list.

In order to set up the code so that you can use polymorphism, create a suitable *interface* that can be implemented by both Rectangle and Circle, and insert the appropriate type parameter in the declaration of the objects list. Then implement computeAverageArea.

For this problem, here are the steps of implementation you must complete:

1. Define an appropriate interface, and make sure both Rectangle and Circle implement this interface. (You will get no credit if you do not use an interface.)
2. Implement the method computeAverageArea. The implementation of this method should use only one loop (if you use two loops or more, the solution is incorrect).
3. When you specify the type parameter for the objects list, you will need to change the type of the temp variable in the swap method.