Write a set of classes that could be used to do simple calculations on geometric objects. The set should include the following classes.

1. **Shape**, containing abstract methods **area** and **perimeter**.
2. **Rectangle**, a subclass of Shape, containing a constructor (with parameter for length and width) along with methods area and perimeter.
3. **Triangle**, a subclass of **Shape**, containing a constructor (with parameters for the three sides of a triangle) along with methods area (see note below) and perimeter.
4. **Square**, a subclass of **Rectangle**, containing a constructor (with a parameter for the length of a side) and methods that invoke the methods of the Rectangle class to determine the perimeter and area of a square.

**Note**:

First, calculate the value of the semi-perimeter, s, of the triangle with sides a, b, and c

s = 

and then use this to determine the area A

A = 