

Lab 15: Virtual, Inheritance

Create an **abstract** Polygon class with the following requirements:

- protected integer member variables **width** and **height**
- a default constructor
- a 2-parameter constructor
- 1 modifier function
- a no-parameter, virtual method named **area** with a return type of int
- a method named **printArea** which prints the area of a polygon

Create a Rectangle class which is a derived class of Polygon with the following requirements:

- a constructor
- a 2-parameter constructor
- overriding method for **area** ($\text{length} * \text{width}$)
- a method named **printRectangle** which prints the string "RECTANGLE"

Create a Triangle class which is a derived class of Polygon with the following requirements:

- a constructor
- a 2-parameter constructor
- overriding method for **area** ($(\text{base} * \text{height}) / 2$)
- a method named **printTriangle** which prints the string "TRIANGLE"