Assignment: Writing `class Geometry`

1. Take your `UsingMath`, and separate out the geometry-related methods into a separate class named `Geometry`. So that we can keep our `UsingMath` code undisturbed, also make a `UsingGeometry` that will call the `Geometry` class methods. Here are the steps to follow:
   - Create a class named `Geometry` – do not include a `main` method in this class!
   - Move all geometry-related methods from `UsingMath` into the `Geometry` class. (The methods `calculateCircumference` and `calculateCircleArea`).
   - Create a class name `UsingGeometry`. Include a `main` method in this class.
   - Copy the code from the `main` method of `UsingMath` into the `main` method of the `UsingGeometry`. Delete the methods `calculateCircumference` and `calculateCircleArea` from the `UsingGeometry` class code.
   - At this point, the `UsingGeometry` will not know to find the methods `calculateCircumference` nor `calculateCircleArea` in the `Geometry` class. To let the compiler know which class to find these methods, put "`Geometry.`" in front of each of these methods. Note that this is similar to how we call `Math` class methods – using the class name and a period in front of the method name, such as: `Math.sqrt(2)`.
   - Run your `UsingGeometry` and confirm the output is the same as it was for the `UsingMathClass`. Here is the expected output of `UsingMath`:

```
The value of pi is: 3.141592653589793
The circumference of a circle of radius 5.0 is equal to 31.41592653589793.
The area of a circle of radius 5.0 is equal to 78.53981633974483.
```

2. To your `UsingGeometry` class, add the functionality to calculate the hypotenuse length of a right-angle triangle.
   - Create a new method named `hypotenuseLength` in the `Geometry` class. This method should take two parameters of type `double` that represent the two legs of a right-angle triangle. It should also return a double value that is the calculated hypotenuse length using the formula: $h = \sqrt{a^2 + b^2}$.
   - Create a new method named `printHypotenuseLength` in the `UsingGeometry` class. This method should take two parameters of type double that represent the two legs of a right-angle triangle, and print, when called with parameter values 3.0 and 4.0, exactly the output (with or without the line wrapping):

```
A right-angle triangle with side lengths of 3.0 and 4.0 has a hypotenuse
length of 5.0.
```

The complete and final output of the program is shown here.:

```
The value of pi is: 3.141592653589793
The circumference of a circle of radius 5.0 is equal to 31.41592653589793.
The area of a circle of radius 5.0 is equal to 78.53981633974483.
A right-angle triangle with side lengths of 3.0 and 4.0 has a hypotenuse
length of 5.0.
```

After coding and testing your solution, copy your working code from each class into the appropriate box on the following page.

Assignment: Writing `class Geometry`

After coding and testing your solution, copy your working code from each class into the appropriate box below.

```
// class Geometry
```

```
// class UsingGeometry
```