

Assignment 3

Due: Tuesday, September 25, 2018

The assignment must be submitted over the e-learning

Write a C++ program designing a Geometry Calculator

Write a program that displays the following menu:

Geometry Calculator

1. Calculate the Area of a Circle
2. Calculate the Area of a Rectangle
3. Calculate the Area of a Triangle
4. Quit

Enter your choice (1-4):

If the user enters 1, the program should ask for the radius of the circle and then display its area. Use the following formula:

$$\text{area} = \pi r^2$$

Use 3.14159 for π and the radius of the circle for r . If the user enters 2, the program should ask for the length and width of the rectangle and then display the rectangle's area. Use the following formula:

$$\text{area} = \text{length} * \text{width}$$

If the user enters 3 the program should ask for the length of the triangle's base and its height, and then display its area. Use the following formula:

$$\text{area} = \text{base} * \text{height} * .5$$

If the user enters 4, the program should end.

Input Validation: Display an error message if the user enters a number outside the range of 1 through 4 when selecting an item from the menu. Do

not accept negative values for the circle's radius, the rectangle's length or width, or the triangle's base or height.

You must SUBMIT only the C++ code (.cpp file) over the elearning.

Programming assignments will be graded utilizing the following criteria:

- Program Design & Program Execution
- Satisfaction of specification
- Coding Style & comments
- Documentation

NOTE:

Your code must contain the information (as comments):

- Your complete Name
- Course Name
- Course Number
- Section
- Due Date
- Date Completed
- Date Submitted