CIT133 Beginning C++ Assignment #3

Date Assigned: 9/3 Date Due: **9/13**
Total Points = 100 points

DO NOT share your answers with anyone. DO NOT collaborate on completing work with anyone. DO NOT use the Internet to search for solution to assignments. DO NOT pay anyone to write your code. Failure to meet this requirement leads to a violation of the academic integrity principles.

Helper File: See the helper files located under the assignment link where you picked up this assignment file for a sample question and answer.

Grading Criteria File: See the grading criteria file under the assignment link where you picked up this assignment file for a sample question and answer.

Objective: Demonstrate your understanding of basic C++ constructs for input, process and output. Demonstrate your understanding of writing pseudocode to solve problems. This assignment is based on the material covered in **chapters 1 and 2** of your textbook and the material covered on algorithms.

Assignment: Write the pseudocode and the C++ program to calculate and display the area of a right triangle, a rectangle, a square, a circle and a cylinder. Make sure the prompts for both input and output are descriptive. The pseudocode will be placed in the comments section of the C++ program at the beginning of the program file.

Process:

The program must be able to accept any number (whole or decimal as input). We can use the following formulas:
Area of triangle = base * height / 2
Area of rectangle = length * width
Area of square = side * side
Area of circle = π * radius * radius
Area of cylinder = 2 * π * radius * height + 2 * π * radius * radius

Use 22/7 for the value of π

Submit your CPP file. Use the file format: **firstNameLastNamecit133_hw3.cpp** for your file name. Submit your file to the assignment dropbox in Canvas. The following is a sample run of the code. **Your processing must be VERY similar to the sample run**.

Don't worry about controlling the number of digits after the decimal point.

SAMPLE RUN:

```
Enter a value for the base of the triangle: 5.4
Enter a value for the height of the triangle: 3
Enter a value for the length of the rectangle: 2. 3
Enter a value for the width of the rectangle: 9
Enter a value for the side of a square: 10
Enter a value for the radius of the circle: 3.7
Enter a value or the radius of a cylinder: 2
Enter a value or the height of a cylinder: 3.1

********** I love Geometry!!!!
Area of the triangle = 8.1
Area of the rectangle = 20.7
Area of the square = 100
The area of the circle = 43.02
The area of the cylinder = 64.1143
```