

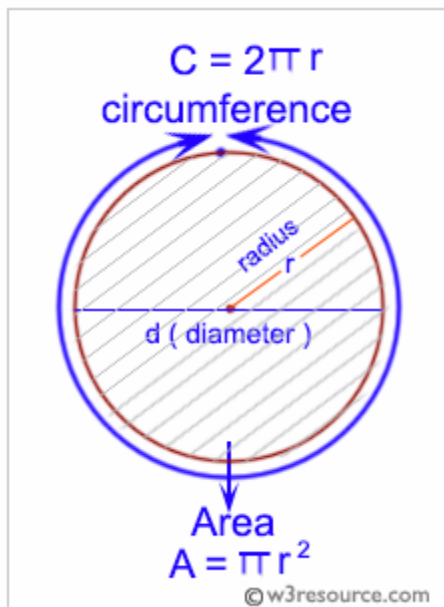


University of Sri Jayewardenepura, Sri Lanka  
Bachelor of Information and Communication Technology Semester 1  
ITC 1063 – Fundamentals of Programming  
Laboratory Exercise 3

## Part 1

Write a C program to get the **radius** of a circle as a user input and to **calculate** the **Area** and the **Circumference** of the circle. **Area** and **Circumference** values should be displayed on the console with **two decimal points**.

The following formulas can be used for calculating the area and the circumference of a circle. Consider the value of  $\pi$  as **3.14159**.



Sample output:

```
Area and the Circumference Calculator
-----
Enter the radius of the circle: 10

Area of the circle: 314.16
Circumference of the circle: 62.83
```

## Part 2

Write a C program to calculate the **roots** of the **quadratic equation**. You may use the following formula to do that and coefficients **a**, **b** and **c** should be taken as user inputs.

### Roots of Quadratic Equation

The roots of a quadratic equation  $ax^2 + bx + c = 0$  are found using

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \rightarrow \text{Quadratic Formula}$$

Sample output:

```
Enter coefficient a: 1
Enter coefficient b: -6
Enter coefficient c: 8
Root 1: 4.00
Root 2: 2.00
```