Rajalakshmi Engineering College

Name: Sugasrijayaram S T
Email: 241001272@rajalakshmi.edu.in
Roll no: 241001272
Phone: 9043035295
Branch: REC
Department: IT - Section 4
Batch: 2028
Degree: B.E - IT

2024_28_III_OOPS Using Java Lab

2028_REC_OOPS using Java_Week 1_Q5

Attempt : 1
Total Mark : 10
Marks Obtained : 10

Section 1 : Coding

1.   Problem Statement:

Emily has a beautiful circular garden in her backyard. She's interested in calculating two important measurements for her garden: the circumference and the area. To do this, she needs a program that can take the radius of her circular garden as input and provide the calculated circumference and area as output. The formulas she should use are as follows:

To calculate the circumference (C) of a circle, you can use the formula:

$C = 2 * \pi * r$

$A = \pi * r^2$

Where:

C represents the circumference.

A represents the area.

π (pi) is approximately 3.14159.

r is the radius of the circle.

Emily is not a programmer, and she needs your help to create a program that will make these calculations for her garden.

Input Format

The first line of input contains a single double-point number radius, representing the radius of the circle.

Output Format

The output should consist of two lines:

The first line should print the circumference of the circle rounded to 2 decimal places, followed by the unit "meters".

The second line should print the area of the circle rounded to 2 decimal places, followed by the unit "square meters".

Refer to the sample output for formatting specifications.

Sample Test Case

Input: 3.0
Output: Circumference: 18.85 meters
Area: 28.27 square meters

Answer

```java
// You are using Java
import java.util.Scanner;
class suga{
    double n;

    suga(double n){
        this.n=n;
```

```java
    }

    void disp(){
        double pi=3.14159;
        String c=String.format("%.2f",(2*pi*n));
        String ar=String.format("%.2f",(pi*n*n));
        System.out.println("Circumference: "+ c + " meters");
        System.out.println("Area: "+ ar+" square meters");
    }

    public static void main(String[] args){
        Scanner s=new Scanner(System.in);
        double n=s.nextDouble();
        suga ob=new suga(n);

        ob.disp();
        s.close();
    }
}
```

Status : Correct   **Marks : 10/10**