Status	Finished
Started	Tuesday, 8 October 2024, 6:55 PM
Completed	Tuesday, 8 October 2024, 7:20 PM
Duration	25 mins 13 secs

Question **1**

Correct

Marked out of 5.00

Create a class called "Circle" with a radius attribute. You can access and modify this attribute using getter and setter methods. Calculate the area and circumference of the circle.

Area of Circle = πr^2

Circumference = 2πr

Input:

2

Output:

Area = 12.57
Circumference = 12.57

For example:

Test	Input	Result
1	4	Area = 50.27 Circumference = 25.13

Answer: (penalty regime: 0 %)

Reset answer

```java
1  import java.io.*;
2  import java.util.*;
3  class Circle
4  {
5      private double radius;
6      public Circle(double radius){
7          this.radius=radius;
8
9
10     }
11     public void setRadius(double radius){
12         this.radius=radius;
13
14
15     }
16     public double getRadius()    {
17         return radius;
18
19
20     }
21     public double calculateArea()  { // complete the below statement
22        return Math.PI * radius*radius;
23
24     }
25     public double calculateCircumference()    {
26         // complete the statement
27        return  2*Math.PI*radius;
28     }
29  }
30  class prog{
31     public static void main(String[] args)  {
32         int r;
33         Scanner sc= new Scanner(System.in);
34         r=sc.nextInt();
35         Circle c= new Circle(r);
36         System.out.println("Area = "+String.format("%.2f", c.calculateArea()));
37         System.out.println("Circumference = "+String.format("%.2f", c.calculateCircumference()));
38
39
40
41     }
42  }
43
```

	Test	Input	Expected	Got	
✓	1	4	Area = 50.27 Circumference = 25.13	Area = 50.27 Circumference = 25.13	✓
✓	2	6	Area = 113.10 Circumference = 37.70	Area = 113.10 Circumference = 37.70	✓
✓	3	2	Area = 12.57 Circumference = 12.57	Area = 12.57 Circumference = 12.57	✓

Passed all tests! ✓

	Test	Input	Expected	Got	
✓	1	4	Area = 50.27 Circumference = 25.13	Area = 50.27 Circumference = 25.13	✓
✓	2	6	Area = 113.10 Circumference = 37.70	Area = 113.10 Circumference = 37.70	✓

Question **2**

Correct

Marked out of 5.00

Create a class Student with two private attributes, name and roll number. Create three objects by invoking different constructors available in the class Student.

Student()

Student(String name)

Student(String name, int rollno)

Input:

No input

Output:

No-arg constructor is invoked
1 arg constructor is invoked
2 arg constructor is invoked
Name =null , Roll no = 0
Name =Rajalakshmi , Roll no = 0
Name =Lakshmi , Roll no = 101

For example:

Test	Result
1	No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0 Name =Rajalakshmi , Roll no = 0 Name =Lakshmi , Roll no = 101

Answer: (penalty regime: 0 %)

```java
class student{
    String name;
    int roll;
    student(){
        this.name=null;
        this.roll=0;
        System.out.println("No-arg constructor is invoked");
    }
    student(String name){
        this.name=name;
        this.roll=0;
        System.out.println("1 arg constructor is invoked");
    }
    student(String name,int roll){
        this.name=name;
        this.roll=roll;
        System.out.println("2 arg constructor is invoked");
    }
    void printString(){
        System.out.println("Name ="+name+" , Roll no = "+roll);
    }
}

class prog{
    public static void main(String args[]){
        student s1 = new student();
        student s2 = new student("Rajalakshmi");
        student s3 = new student("Lakshmi",101);
        s1.printString();
        s2.printString();
        s3.printString();

    }
}
```

	Test	Expected	Got	
✓	1	No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0 Name =Rajalakshmi , Roll no = 0 Name =Lakshmi , Roll no = 101	No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0 Name =Rajalakshmi , Roll no = 0 Name =Lakshmi , Roll no = 101	✓

Passed all tests! ✓

	Test	Expected	Got	
✓	1	No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0 Name =Rajalakshmi , Roll no = 0 Name =Lakshmi , Roll no = 101	No-arg constructor is invoked 1 arg constructor is invoked 2 arg constructor is invoked Name =null , Roll no = 0 Name =Rajalakshmi , Roll no = 0 Name =Lakshmi , Roll no = 101	✓

Question **3**

Correct

Marked out of 5.00

Create a Class Mobile with the attributes listed below,

private String manufacturer;
private String operating_system;
public String color;
private int cost;

Define a Parameterized constructor to initialize the above instance variables.

Define getter and setter methods for the attributes above.

for example : setter method for manufacturer is

void setManufacturer(String manufacturer){

this.manufacturer= manufacturer;

}

String getManufacturer(){

 return manufacturer;}

Display the object details by overriding the toString() method.

For example:

Test	Result
1	manufacturer = Redmi operating_system = Andriod color = Blue cost = 34000

Answer: (penalty regime: 0 %)

```
 1  class mobile{
 2      String man;
 3      String os;
 4      String color;
 5      int cost;
 6      mobile(String man,String os,String color,int cost){
 7          this.man=man;
 8          this.os=os;
 9          this.color=color;
10          this.cost=cost;
11      }
12      void printString(){
13          System.out.println("manufacturer = "+ man);
14          System.out.println("operating_system = "+os);
15          System.out.println("color = "+color);
16          System.out.println("cost = "+cost);
17      }
18  }
19
20  class prog{
21      public static void main(String args[]){
22          mobile m = new mobile("Redmi","Andriod","Blue",34000);
23          m.printString();
24      }
25  }
```

	Test	Expected	Got	
✓	1	manufacturer = Redmi operating_system = Andriod color = Blue cost = 34000	manufacturer = Redmi operating_system = Andriod color = Blue cost = 34000	✓

Passed all tests! ✓

◄ Lab-04-MCQ

Jump to...

Number of Primes in a specified range ►

Passed all tests! ✓

◄ Lab-04-MCQ

Jump to...