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Status	Finished
Started	Wednesday, 2 October 2024, 1:45 PM
Completed	Wednesday, 2 October 2024, 2:09 PM
Duration	24 mins 14 secs

Question 1

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 public class Mobile{
2     private String manufacturer;
3     private String operatingSystem;
4     private int cost;
5     private String color;
6     public Mobile(String manufacturer,String operatingSystem,int cost,String color){
7         this.manufacturer=manufacturer;
8         this.operatingSystem=operatingSystem;
9         this.cost=cost;
10        this.color=color;
11    }
12    @Override
13    public String toString(){
14        return "manufacturer = " + manufacturer+ "\noperating_system = "
15    }
16    }
17    public static void main(String[] args){
18        Mobile mobile=new Mobile("Redmi","Andriod",34000,"Blue");
19        System.out.println(mobile.toString());
20    }
21
22
23
```

	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! ✓

Question 2

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 = $2\pi r$

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

```

1 import java.util.Scanner;
2 class Circle
3 {
4     private double radius;
5     public Circle(double radius){
6         this.radius=radius;
7
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        return 2*Math.PI*radius;
27    }
28 }
29 public class Main{
30     public static void main(String[] args) {
31         Scanner sc= new Scanner(System.in);
32         double r=sc.nextDouble();
33         Circle circle= new Circle(r);
34         System.out.printf("Area = %.2f\n",circle.calculateArea());
35         System.out.printf("Circumference = %.2f",circle.calculateCircumfer
36         sc.close();
37
38     }
39 }
40

```

	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! ✓

Question 3

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 %)

```

1 public class Student{
2     private String name;
3     private int rollNo;
4     public Student(){
5         this.name=null;
6         this.rollNo=0;
7         System.out.println("No-arg constructor is invoked");
8     }
9     public Student(String name){
10        this.name=name;
11        this.rollNo=0;
12        System.out.println("1 arg constructor is invoked");
13    }
14    public Student(String name,int rollNo){
15        this.name=name;
16        this.rollNo=rollNo;
17        System.out.println("2 arg constructor is invoked");
18    }
19    public void displayInfo(){
20        System.out.println("Name =" + this.name + " , Roll no = " +this.roll
21    }
22 }
23 public static void main(String[] args){
24     Student student1=new Student();
25     Student student2=new Student("Rajalakshmi");
26     Student student3=new Student("Lakshmi",101);
27     student1.displayInfo();
28     student2.displayInfo();
29     student3.displayInfo();
30 }
31 }

```

	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! ✓

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