

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 manfac;  
3     private String os;  
4     private int cost;  
5     public String color;  
6 ▼     public Mobile(String manfac,String os,String color,int cost) {  
7         this.manfac=manfac;
```

```
1  this.manfac=manfac;
2
3  this.os=os;
4
5  this.color=color;
6
7  this.cost=cost;
8
9  }
10
11 public void setman(String manfac) {
12     this.manfac=manfac;
13 }
14
15 public String getmanfac() {
16     return manfac; }
17
18 public void setos(String os) {
19     this.os=os;
20 }
21
22 public String getos() {
23     return os;
24 }
25
26 public void setcost(int cost) {
27     this.cost=cost;
28 }
29
30 public int getcost() {
31     return cost;
32 }
33
34 public void setcolor(String color) {
35     this.color=color;
36 }
37
38 public String getcolor() {
39     return color;
40 }
41
42 @Override
43 public String toString() {
44     return "manufacturer = " + manfac + "\noperating_system = " + os + "\ncolor = "
45 }
46
47 public static void main(String[] args) {
48     Mobile mobile=new Mobile("Redmi","Andriod","Blue",34000);
49     System.out.println(mobile.toString());
50 }
51
52 }
```

	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 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         System.out.println("No-arg constructor is invoked");
6         this.name=null;

```

```

7      this.rollno=0;
8  }
9  public student(String name) {
10     System.out.println("1 arg constructor is invoked");
11     this.name=name;
12     this.rollno=0;
13 }
14 public student(String name,int rollno) {
15     System.out.println("2 arg constructor is invoked");
16     this.name=name;
17     this.rollno=rollno;
18 }
19 @Override
20 public String toString() {
21     return "Name =" +(name==null?"null":name)+" , Roll no = " + rollno;
22 }
23 public static void main(String[] args) {
24     student st1=new student();
25     student st2=new student("Rajalakshmi");
26     student st3=new student("Lakshmi",101);
27     System.out.println(st1);
28     System.out.println(st2);
29     System.out.println(st3);
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! ✓

Question **3**

Correct

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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.io.*;
2 import java.util.Scanner;
3 class Circle
4 {
5     private double radius;
6     public Circle(double radius){
7         // set the instance variable radius
8         this.radius=radius;
9     }
10    }
11    public void setRadius(double radius){
12        // set the radius
13        this.radius=radius;
14    }
15 }
```

```

15     }
16     public double getRadius()    {
17         // return the radius
18         return radius;
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         // invoke the calculatecircumference method
38         System.out.println("Circumference = "+String.format("%.2f",c.calculateCircumference));
39     }
40 }
41 }
42

```

	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	✓

	Test	Input	Expected	Got	
✓	3	2	Area = 12.57 Circumference = 12.57	Area = 12.57 Circumference = 12.57	✓

Passed all tests! ✓

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