OOJ LAB 4

USN:1BM21CS231

```java
import java.util.*;

abstract class Shape
{
  abstract void PrintArea();
}



class Rectangle extends Shape
{
  double length,breadth;

  Rectangle(double l,double b)
  {
   length=l;
   breadth=b;
  }

  void PrintArea()
  {
   System.out.println("The Area of the rectangle is: "+(length*breadth));
  }
}
```

```java
class Triangle extends Shape
{
  double base,height;

  Triangle(double b,double h)
  {
    base=b;
    height=h;
  }

  void PrintArea()
  {
   System.out.println("The Area of the triangle is: "+(0.5*base*height));
  }
}

class Circle extends Shape
{
  double radius;

  Circle(double r)
  {
   radius=r;
  }
```

```java
  void PrintArea()
  {
    System.out.println("The Area of the circle is: "+((Math.PI)*(Math.pow(radius,2))));
  }
}


public class MyShape
{
  public static void main(String [] args)
  {
    Scanner sc = new Scanner(System.in);
    Rectangle rect = new Rectangle(23.4,54.9);
    Triangle tri = new Triangle(56.7,62.84);
    Circle cir = new Circle(50.0);

    rect.PrintArea();
    tri.PrintArea();
    cir.PrintArea();
  }
}
```

```
Microsoft Windows [Version 10.0.22000.1219]
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C:\Users\Admin>set path="C:\Program Files\Java\jdk-19\bin"

C:\Users\Admin>cd Desktop

C:\Users\Admin\Desktop>javac MyShape.java

C:\Users\Admin\Desktop>java MyShape
The Area of the rectangle is: 1284.6599999999999
The Area of the triangle is: 1781.5140000000001
The Area of the circle is: 7853.981633974483

C:\Users\Admin\Desktop>
```