JAVA LAB PROGRAM 4

import java.util.\*;

abstract class Shape

{

int side1;

int side2;

abstract void printArea(int side1,int side2);

public Shape(int side1,int side2)

{

this.side1=side1;

this.side2=side2;

}

}

class Rectangle extends Shape

{

public Rectangle(int length,int breadth)

{

super(length,breadth);

}

void printArea(int side1,int side2)

{

int area;

area=side1\*side2;

System.out.println("Area of rectangle=" + area);

}

}

class Triangle extends Shape

{

public Triangle(int height,int base)

{

super(height,base);

}

void printArea(int side1,int side2)

{

double area;

area=0.5\*side1\*side2;

System.out.println("Area of triangle=" + area);

}

}

class Circle extends Shape

{

int radius;

public Circle(int radius)

{

super(radius,radius);

}

void printArea(int side1,int side2)

{

double area;

area=Math.PI\*side1\*side1;

System.out.println("Area of circle=" + area);

}

}

public class LabFourTwo

{

public static void main(String[] args)

{

Scanner input=new Scanner(System.in);

System.out.println("Enter length and breadth of rectangle: ");

int length=input.nextInt();

int breadth=input.nextInt();

Shape rectangle=new Rectangle(length,breadth);

rectangle.printArea(length,breadth);

System.out.println("Enter height and base of triangle: ");

int height=input.nextInt();

int base=input.nextInt();

Shape triangle=new Triangle(height,base);

triangle.printArea(height,base);

System.out.println("Enter radius of circle: ");

int radius=input.nextInt();

Shape circle=new Circle(radius);

circle.printArea(radius,0);

System.out.println("Gopika Pushparajan 1BM23CS101");

}

}

OUTPUT

