```java
import java.util.Scanner;
abstract class Shape {
    int dim1, dim2;
    Shape(int d1, int d2) {
        dim1 = d1;
        dim2 = d2;
    }
    abstract void printArea();
}
class Rectangle extends Shape {
    Rectangle(int length, int breadth) {
        super(length, breadth);
    }
    void printArea() {
        double area = dim1 * dim2;
        System.out.println("Area of Rectangle: " + area);
    }
}
class Triangle extends Shape {
    Triangle(int base, int height) {
        super(base, height);
    }
    void printArea() {
        double area = 0.5 * dim1 * dim2;
        System.out.println("Area of Triangle: " + area);
    }
}
class Circle extends Shape {
    Circle(int radius) {
        super(radius, radius);
    }
    void printArea() {
        double area = Math.PI * dim1 * dim1;
        System.out.println("Area of Circle: " + area);
    }
}
```

```java
37    public class ShapeMain {
          Run | Debug
38        public static void main(String[] args) {
39            Scanner sc = new Scanner(System.in);
40            System.out.print(s:"Enter length and breadth of rectangle: ");
41            int l = sc.nextInt();
42            int b = sc.nextInt();
43            Rectangle r = new Rectangle(l, b);
44            r.printArea();
45            System.out.print(s:"\nEnter base and height of triangle: ");
46            int base = sc.nextInt();
47            int height = sc.nextInt();
48            Triangle t = new Triangle(base, height);
49            t.printArea();
50            System.out.print(s:"\nEnter radius of circle: ");
51            int rad = sc.nextInt();
52            Circle c = new Circle(rad);
53            c.printArea();
54        }
55    }
56
```

J BookMain.java 2   J ShapeMain.java ✕

C: > Users > KALYAN > Desktop > SEM3 > java > J ShapeMain.java > ✂ Circle > ◎ Circle(int)
    19   class Triangle extends Shape {

PROBLEMS ③   DEBUG CONSOLE   TERMINAL   PORTS

```
PS C:\Users\KALYAN> & 'C:\Program Files\Java\jdk-24\bin\java.exe' '-agentlib:jdwp=transport=
DetailsInExceptionMessages' '-cp' 'C:\Users\KALYAN\AppData\Local\Temp\vscodesws_7b337\jdt_ws\
Enter length and breadth of rectangle: 10 20
Area of Rectangle: 200.0

Enter base and height of triangle: 2
10
Area of Triangle: 10.0

Enter radius of circle: 5
Area of Circle: 78.53981633974483
PS C:\Users\KALYAN>
```