

# INPUT:

```
abstract class AreaCalculator {  
    abstract double calculateArea();  
}
```

```
class Rectangle extends AreaCalculator {  
    private double length;  
    private double width;  
  
    public Rectangle(double length, double width) {  
        this.length = length;  
        this.width = width;  
    }  
  
    public double calculateArea() {  
        return length * width;  
    }  
}
```

```
class Circle extends AreaCalculator {  
    private double radius;  
  
    public Circle(double radius) {  
        this.radius = radius;  
    }  
}
```

```
}

public double calculateArea() {
    return Math.PI * radius * radius;
}
}

class AreaCalculatorTest {
    public static void main(String[] args) {
        Rectangle rectangle = new Rectangle(10, 5);
        double rectangleArea = rectangle.calculateArea();
        System.out.println("Area of Rectangle: " + rectangleArea);

        Circle circle = new Circle(5);
        double circleArea = circle.calculateArea();
        System.out.println("Area of Circle: " + circleArea);
    }
}
```

Output:-

```
Output Clear
java -cp /tmp/t20SwJo1qk AreaCalculatorTest
Area of Rectangle: 50.0Area of Circle: 78.53981633974483
```