

```

package com.mycompany.shapemain;

abstract class Shape {
    abstract double calculateArea();

    void display()
    {
        System.out.println("Displaying shape...");
    }
}

public class Circle extends Shape{
    private double radius;

    public Circle(double radius)
    {
        this.radius=radius;
    }

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

public class Rectangle extends Shape{
    private double length,width;

    public Rectangle(double length,double width)
    {
        this.length=length;
        this.width=width;
    }

    @Override
    public double calculateArea()
    {
        return length*width;
    }
}

public class ShapeMain {

    public static void main(String[] args) {
        Circle circle=new Circle(5.0);
        System.out.println("Area of a circle: "+circle.calculateArea());
        circle.display();
    }
}

```

```
Rectangle rectangle=new Rectangle(3,4);
System.out.println("Area of a rectangle: "+rectangle.calculateArea());
circle.display();
    }
}
```