

```

// Shape.java
interface Shape {
    double calculateArea();
}

// Circle.java
class Circle implements Shape {
    private double radius;
    public Circle(double radius) {
        this.radius = radius;
    }
    @Override
    public double calculateArea() {
        return Math.PI * radius * radius;
    }
}

// Rectangle.java
class Rectangle implements Shape {
    private double length;
    private double width;
    public Rectangle(double length, double width) {
        this.length = length;
        this.width = width;
    }
    @Override
    public double calculateArea() {
        return length * width;
    }
}

// Triangle.java
class Triangle implements Shape {
    private double base;
    private double height;
    public Triangle(double base, double height) {
        this.base = base;
        this.height = height;
    }
    @Override
    public double calculateArea() {
        return 0.5 * base * height;
    }
}

// Main.java
public class Main {
    public static void main(String[] args) {
        Shape circle = new Circle(5);
        Shape rectangle = new Rectangle(4, 6);
        Shape triangle = new Triangle(3, 8);
        System.out.println("Area of Circle: " + circle.calculateArea());
        System.out.println("Area of Rectangle: " + rectangle.calculateArea());
        System.out.println("Area of Triangle: " + triangle.calculateArea());
    }
}

```

Project ▾

Main.java ×

Run Main ×



```
C:\Users\admin\jdk-23.0.1\bin\java.exe "-javaagent:F:\IntelliJ IDEA Community Editi
```

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Area of Circle: 78.53981633974483
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Area of Rectangle: 24.0
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Area of Triangle: 12.0
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Process finished with exit code 0
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