

## PROGRAM 03

```
abstract class Shape {  
    public abstract double calculateArea();  
}  
  
class Circle extends Shape {  
    private double radius;  
  
    public Circle(double radius) {  
        this.radius = radius;  
    }  
    @Override  
    public double calculateArea() {  
        return 3.14 * radius * radius;  
    }  
}  
  
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;  
    }  
}  
  
class Square extends Shape {  
    private double side;  
  
    public Square(double side) {  
        this.side = side;  
    }  
    @Override  
    public double calculateArea() {  
        return side * side;  
    }  
}  
  
public class Inheritance {
```

```
public static void main(String[] args) {  
  
    Shape circle = new Circle(2);  
    Shape rectangle = new Rectangle(4, 6);  
    Shape square = new Square(4);  
  
    System.out.println("Circle Area: " + circle.calculateArea());  
    System.out.println("Rectangle Area: " + rectangle.calculateArea());  
    System.out.println("Square Area: " + square.calculateArea());  
  
}  
}
```

com.mycompany.inheritance.INHERITANCE >

Output X

Run (STRINGPROGRAM) X Run (INHERITANCE) X

exec:3:j:\exec (default-crt) & INHERITANCE

Circle Area: 12.56  
Rectangle Area: 24.0  
Square Area: 16.0

BUILD SUCCESS

Total time: 1.893 s  
Finished at: 2026-02-18T23:17:57+05:30