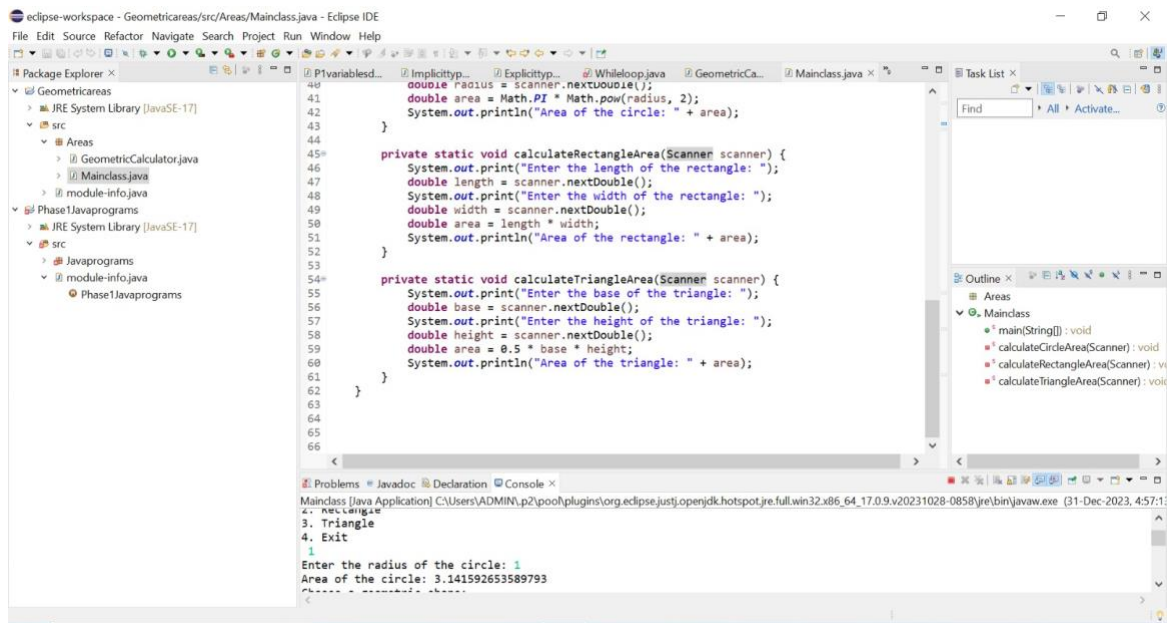


## Circle:

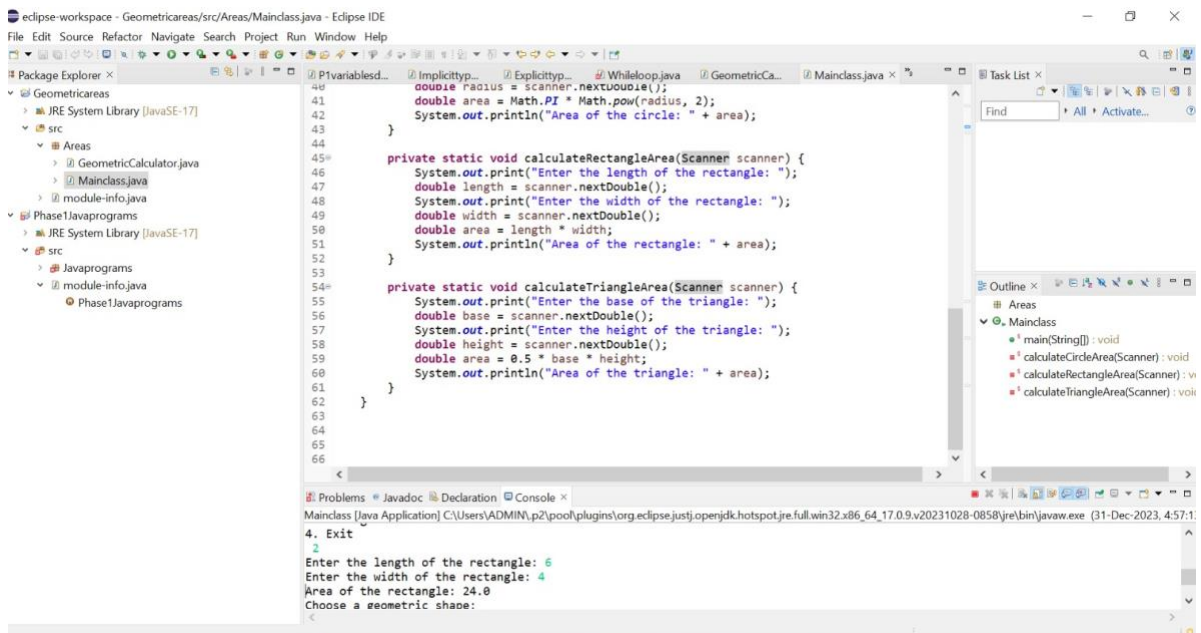


```
1 package Geometricareas;
2
3 import java.util.Scanner;
4
5 public class Mainclass {
6     public static void main(String[] args) {
7         Scanner scanner = new Scanner(System.in);
8         double radius = scanner.nextDouble();
9         double area = Math.PI * Math.pow(radius, 2);
10        System.out.println("Area of the circle: " + area);
11    }
12
13    private static void calculateRectangleArea(Scanner scanner) {
14        System.out.print("Enter the length of the rectangle: ");
15        double length = scanner.nextDouble();
16        System.out.print("Enter the width of the rectangle: ");
17        double width = scanner.nextDouble();
18        double area = length * width;
19        System.out.println("Area of the rectangle: " + area);
20    }
21
22    private static void calculateTriangleArea(Scanner scanner) {
23        System.out.print("Enter the base of the triangle: ");
24        double base = scanner.nextDouble();
25        System.out.print("Enter the height of the triangle: ");
26        double height = scanner.nextDouble();
27        double area = 0.5 * base * height;
28        System.out.println("Area of the triangle: " + area);
29    }
30 }
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```

Console Output:

```
1
2
3. Triangle
4. Exit
5
Enter the radius of the circle: 1
Area of the circle: 3.141592653589793
Choose a geometric shape:
```

## Rectangle:

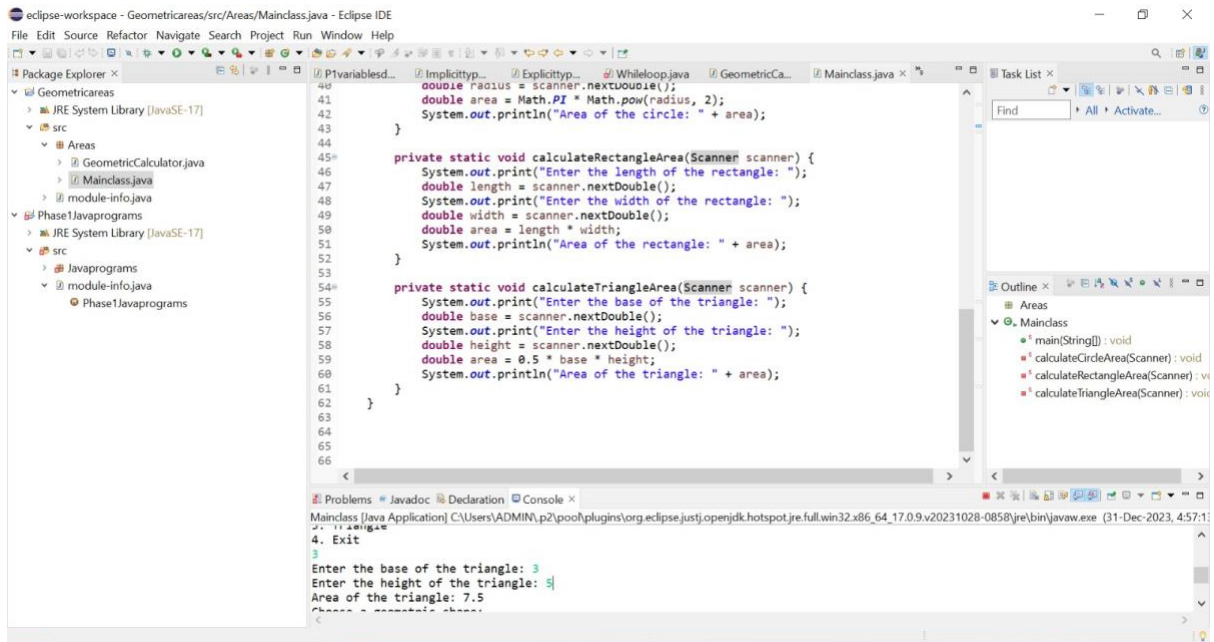


```
1 package Geometricareas;
2
3 import java.util.Scanner;
4
5 public class Mainclass {
6     public static void main(String[] args) {
7         Scanner scanner = new Scanner(System.in);
8         double radius = scanner.nextDouble();
9         double area = Math.PI * Math.pow(radius, 2);
10        System.out.println("Area of the circle: " + area);
11    }
12
13    private static void calculateRectangleArea(Scanner scanner) {
14        System.out.print("Enter the length of the rectangle: ");
15        double length = scanner.nextDouble();
16        System.out.print("Enter the width of the rectangle: ");
17        double width = scanner.nextDouble();
18        double area = length * width;
19        System.out.println("Area of the rectangle: " + area);
20    }
21
22    private static void calculateTriangleArea(Scanner scanner) {
23        System.out.print("Enter the base of the triangle: ");
24        double base = scanner.nextDouble();
25        System.out.print("Enter the height of the triangle: ");
26        double height = scanner.nextDouble();
27        double area = 0.5 * base * height;
28        System.out.println("Area of the triangle: " + area);
29    }
30 }
31
32
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```

Console Output:

```
1
2
3. Triangle
4. Exit
5
Enter the length of the rectangle: 6
Enter the width of the rectangle: 4
Area of the rectangle: 24.0
Choose a geometric shape:
```

# Triangle:



The screenshot shows the Eclipse IDE with a project named 'Geometricareas'. The package explorer on the left shows the project structure: 'Geometricareas' contains 'src' which contains 'Areas' (with 'GeometricCalculator.java' and 'Mainclass.java') and 'Phase1Javaprograms' (with 'src' containing 'Javaprograms' and 'module-info.java'). The main editor displays the code for 'Mainclass.java'. The code includes a circle area calculation and two static methods for rectangle and triangle area calculations. The console at the bottom shows the execution output.

```
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66

double radius = scanner.nextDouble();
double area = Math.PI * Math.pow(radius, 2);
System.out.println("Area of the circle: " + area);
}

private static void calculateRectangleArea(Scanner scanner) {
    System.out.print("Enter the length of the rectangle: ");
    double length = scanner.nextDouble();
    System.out.print("Enter the width of the rectangle: ");
    double width = scanner.nextDouble();
    double area = length * width;
    System.out.println("Area of the rectangle: " + area);
}

private static void calculateTriangleArea(Scanner scanner) {
    System.out.print("Enter the base of the triangle: ");
    double base = scanner.nextDouble();
    System.out.print("Enter the height of the triangle: ");
    double height = scanner.nextDouble();
    double area = 0.5 * base * height;
    System.out.println("Area of the triangle: " + area);
}
}
```

Problems Javadoc Declaration Console

Mainclass [Java Application] C:\Users\ADMIN\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86\_64\_17.0.9.v20231028-0858\jre\bin\javaw.exe (31-Dec-2023, 4:57:11)

```
4. Exit
3
Enter the base of the triangle: 3
Enter the height of the triangle: 5
Area of the triangle: 7.5
```