Experiment 4

Write a program in JAVA to demonstrate the method and constructor overloading

```java
public class Area{

    // Area of a Circle (1 parameter)
    public double calculateArea(double radius) {
        return Math.PI * radius * radius;
    }

    // Area of a Rectangle (2 parameters)
    public double calculateArea(double length, double width) {
        return length * width;
    }

    // Area of a Triangle (3 parameters, third ignored)
    public double calculateArea(double base, double height, int ignored) {
        return 0.5 * base * height;
    }

    public static void main(String[] args) {
        Area s = new Area();

        // Circle
        double circleArea = s.calculateArea(5.0);
        System.out.println("Area of Circle: " + circleArea);

        // Rectangle
        double rectangleArea = s.calculateArea(4.0, 6.0);
        System.out.println("Area of Rectangle: " + rectangleArea);

        // Triangle (third parameter is ignored, used only for overloading signature)
        double triangleArea = s.calculateArea(10.0, 5.0, 0);
        System.out.println("Area of Triangle: " + triangleArea);
    }
}

Output:

Area of Circle: 78.53981633974483
Area of Rectangle: 24.0
Area of Triangle: 25.0
```