3.Writing a program in Java to verify implementations of methods and ways of calling a method

```java
public class MethodDemo {

  // A simple method that takes two integers as parameters and returns their sum
  public static int sum(int a, int b) {
    return a + b;
  }

  public static void main(String[] args) {

    // Call the sum() method and print the result
    int result1 = sum(2, 3);
    System.out.println("Result 1: " + result1);

    // Call the sum() method with variables as arguments
    int x = 4;
    int y = 5;
    int result2 = sum(x, y);
    System.out.println("Result 2: " + result2);

    // Call the sum() method with expressions as arguments
    int result3 = sum(1 + 2, 3 * 4);
    System.out.println("Result 3: " + result3);

    // Call the sum() method with the result of another method as an argument
    int result4 = sum(sum(2, 3), sum(4, 5));
    System.out.println("Result 4: " + result4);
  }
}
```

OUTPUT:

Result 1: 5

Result 2: 9

Result 3: 15

Result 4: 14