

Chapter 1 Programming Exercises

1. Print your name to the screen.
2. Print the result of 3 divided by 4 to the screen.
 - a. What was the result? Was it what you expected?
3. Print the result of 3.0 divided by 4 to the screen.
 - a. What was the result? Was it what you expected?
 - b. What was the difference?
4. Print the result of (3 + 5) times 2 to the screen.
5. Print the result of 3 + 5 times 2 to the screen.

```
public class Main {
6.     public static void main(String[] args) {
7.         // Print your name to the screen
8.         System.out.println("Your Name");
9.
10.         // Print the result of 3 divided by 4 to the screen
11.         int result1 = 3 / 4;
12.         System.out.println("Result: " + result1);
13.         // The result of 3 divided by 4 is 0. Java performs integer division, which discards
        the decimal part.
14.
15.         // Print the result of 3.0 divided by 4 to the screen
16.         double result2 = 3.0 / 4;
17.         System.out.println("Result: " + result2);
18.         // The result of 3.0 divided by 4 is 0.75. Since 3.0 is a floating-point number, Java
        performs floating-point division and preserves the decimal part.
19.
20.         // Difference between the two divisions
21.         double difference = result2 - result1;
22.         System.out.println("Difference: " + difference);
23.         // The difference between the two divisions is 0.75 - 0 = 0.75.
24.
25.         // Print the result of (3 + 5) times 2 to the screen
26.         int result3 = (3 + 5) * 2;
27.         System.out.println("Result: " + result3);
28.         // The result of (3 + 5) times 2 is 16. The addition operation is performed first due to
        parentheses, followed by the multiplication.
29.
30.         // Print the result of 3 + 5 times 2 to the screen
31.         int result4 = 3 + 5 * 2;
32.         System.out.println("Result: " + result4);
33.         // The result of 3 + 5 times 2 is 13. In Java, multiplication and division take
        precedence over addition and subtraction, so 5 * 2 is performed first, resulting in 10,
        and then added to 3.
34.     }
35. }
```