

# Assignment 1

## Java Mastery Intermediate Methods, Collections, and Beyond

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### Problem statement 1:

Implement a Java method that calculates the factorial of a given number.

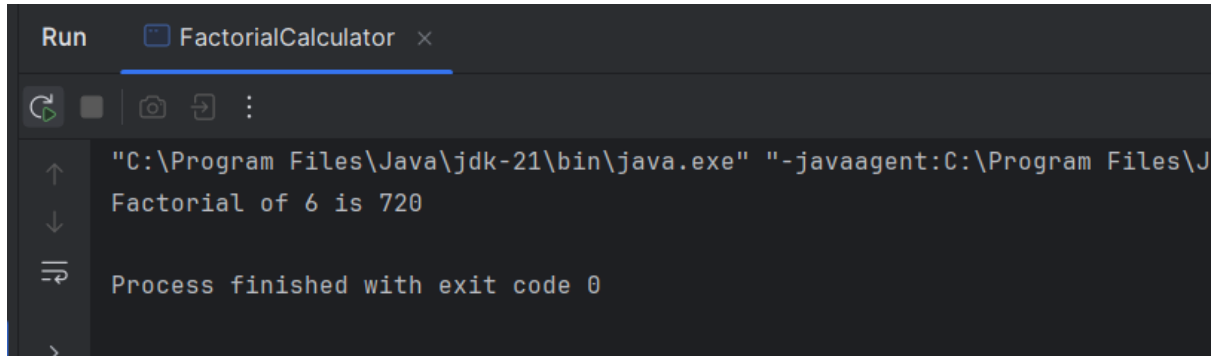
### Code:

```
1  ▶ public class FactorialCalculator {
2
3      1 usage new *
4      public static long factorial(int n) {
5          if (n < 0) {
6              System.out.println("Number should be positive.");
7              return -1;
8          }
9          if (n < 3) {
10             return n;
11         }
12         long result = 1;
13         for (int i = 2; i <= n; i++) {
14             result *= i;
15         }
16         return result;
17     }
18     new *
19     ▶ public static void main(String[] args) {
20
21         int number = 6;
22         long answer = factorial(number);
23
24         if(answer == -1) {
25             System.out.println("Enter valid number.");
26         } else {
27             System.out.println("Factorial of " + number + " is " + answer);
28         }
29     }
```

## Input:

Number: int

## Output:



The screenshot shows the 'Run' console of an IDE. The title bar indicates the file 'FactorialCalculator'. The console output shows the command to run the Java program, the output 'Factorial of 6 is 720', and the message 'Process finished with exit code 0'.

```
Run  FactorialCalculator x
"C:\Program Files\Java\jdk-21\bin\java.exe" "-javaagent:C:\Program Files\J
Factorial of 6 is 720
Process finished with exit code 0
```