

Problem Statement 1:

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

Solution:

```
import java.util.Scanner;
public class Main
{
    public static long factorial(long n){
        if(n==0L)return 1;
        return n*factorial(n-1);
    }
    public static void main(String[] args) {
        System.out.println("Enter the Number n(<=20) for which you
want to calculate factorial: ");

        Scanner scanner = new Scanner(System.in);
        long n= scanner.nextLong();

        System.out.println("Factorial of "+n+ " is: "+factorial(n));
    }
}
```