Week 03 : Programming Assignment 1

Due on 2025-02-13, 23:59 IST

Write a program to print the factorial of a number by defining a **static** recursive method named 'Factorial'.

Factorial of any number n is represented by n! and is equal to 1*2*3*....*(n-1)*n. E.g.-

4! = 1*2*3*4 = 24

3! = 3*2*1 = 6

2! = 2*1 = 2

Also,

1! = 1

0! = 1

(Remember to match the output given exactly, including the spaces and new lines)

(passed with presentation error means you will get full marks)

Private Test cases used for evaluation	Input	Expected Output	Actual Output	Status
Test Case 1	0	1	1	Passed

The due date for submitting this assignment has passed.

1 out of 1 tests passed.

You scored 100.0/100.

Assignment submitted on 2025-02-10, 22:03 IST

Your last recorded submission was :

```java
import java.util.Scanner;
class W03_P1{
public static int factorial (int n){
  if(n < 0) return -1;
  if(n==0 || n==1) return 1;
  return n*factorial(n-1);
}
public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        int x;
        x = in.nextInt();
        System.out.print(factorial(x));
  }
}
```

Sample solutions (Provided by instructor)

```java
import java.util.Scanner;
class W03_P1{
public static int factorial(int x){
      if(x == 0 || x == 1){
        return 1;
      }
      else{
        return factorial(x-1)*x;
      }
    }
public static void main(String[] args) {
        Scanner in = new Scanner(System.in);
        int x;
        x = in.nextInt();
        System.out.print(factorial(x));
  }
}
```