S.No: 38	Exp. Name: ***Write a C program to find the Factorial of a given number using Recursion***	Date:2025-01-01

Aim:

Write a program to find the factorial of a given number using recursion process.

Note: Write the recursive function **factorial()** in Program901a.c .

Source Code:

Program901.c

```c
#include <stdio.h>
#include "Program901a.c"
void main() {
    long int n;
    printf("Enter an integer : ");
    scanf("%ld", &n);
    printf("Factorial of %ld is : %ld\n", n ,factorial(n));
}
```

Program901a.c

```c
long int factorial(int n)
{
    if(n==0||n==1)
    {
        return 1;
    }
    else
        return n*factorial(n-1);
}
```

Execution Results - All test cases have succeeded!

Test Case - 1

User Output
Enter an integer : 5
Factorial of 5 is : 120

Test Case - 2

User Output
Enter an integer : 4
Factorial of 4 is : 24

Test Case - 3

User Output
Enter an integer : 8
Factorial of 8 is : 40320

Test Case - 4
User Output
Enter an integer : 0
Factorial of 0 is : 1