# Recursion - Factorial of a Number

Problem Submissions Leaderboard Discussions Write a program to compute the factorial of a number using recursion. Submissions: 514 **Input Format** Max Score: 100 Difficulty: Medium Input consists of an integer. Rate This Challenge: Constraints NA More **Output Format** 

## Sample Input 0

5

### Sample Output 0

The factorial of 5 is 120

## Explanation 0

Since the input is 5, its factorial is 120 which will get printed.

The output consists of an integer that corresponds to the factorial value.

### Sample Input 1

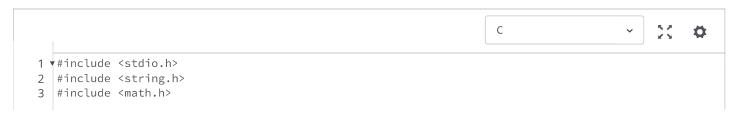
10

#### Sample Output 1

The factorial of 10 is 3628800

#### **Explanation 1**

Since the input is 10, its factorial is 3628800 which will get printed.



```
4 #include <stdlib.h>
   5
   6 vint fact(int n){
   7 🔻
           if(n==0||n==1){
               return 1;
   8
   9
  10
          return n*fact(n-1);
  11 }
  12
  13 vint main() {
  14
           /* Enter your code here. Read input from STDIN. Print output to STDOUT */
  15 ▼
  16
           scanf("%d",&n);
  17
           printf("The factorial of %d is %d",n,fact(n));
  18
  19
           return 0;
  20 }
  21
                                                                                                         Line: 1 Col: 1
<u>♣ Upload Code as File</u> Test against custom input
                                                                                          Run Code
                                                                                                        Submit Code
 Testcase 0 🗸
               Testcase 1 🗸
 Congratulations, you passed the sample test case.
 Click the Submit Code button to run your code against all the test cases.
 Input (stdin)
 Your Output (stdout)
  The factorial of 5 is 120
 Expected Output
  The factorial of 5 is 120{-truncated-}
```