IOBS

Submissions: 36

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Max Score: 10 Difficulty: Medium

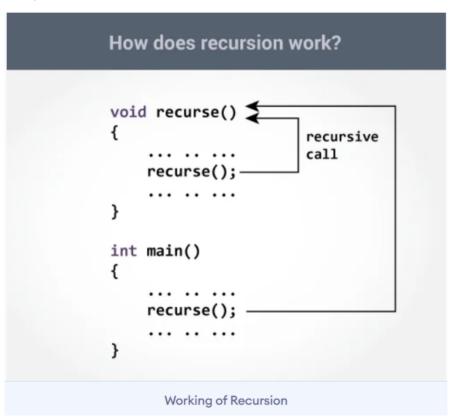
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FACTORIAL the recursive way

Problem Submissions Leaderboard Discussions

Write a C program to find the factorial of a given number using a recursive function

Example of a recursive function:



The concept of recurion helps us solve certain problems in a simple way.

Input Format

An integer

Constraints

Use the concept of **recursion** to solve the problem

Output Format

Prints the factorial of a valid input number else prints ERROR

NB: a valid input number is greater than or equal to 0

Sample Input 0

5

Sample Output 0

Sample Input 1

7

Sample Output 1

5040

```
Current Buffer (saved locally, editable) & 49
                                                                             C
                                                                                                       5.7
                                                                                                             0
   1 ▼ #include <stdio.h>
   2 #include <string.h>
   3 #include <math.h>
   4 | #include <stdlib.h>
   5 int factorial(int n)
   6 ₹ {
         int f=1,i;
   7
         if( n<0)
   8
   9 ₹
         {
  10
              printf("ERROR");
  11
         else if(n==0)
  12
  13 ▼
         {
  14
              printf("1");
         }
  15
          else
  16
           {
  17 ▼
               for(i=1;i<=n;i++)
  18
  19 ▼
                   f=f*i;
  20
               }
  21
               printf("%d",f);
  22
  23
          return 0;
  24
  25 }
     int main()
  26
  27 ▼ {
          int n;
  28
          scanf("%d",&n);
  29
          factorial(n);
  30
          return 0;
  31
     }
  32
  33
  34 ▼
          /* Enter your code here. Read input from STDIN. Print output to STDOUT */
  35
  36
  37
                                                                                                     Line: 37 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)

5

Your Output (stdout)		
120		
Expected Output		
120		

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