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# Extra Long Factorials

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Problem

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You are given an integer  $N$ . Print the factorial of this number.

$$N! = N \times (N - 1) \times (N - 2) \times \cdots \times 3 \times 2 \times 1$$

## Input

Input consists of a single integer  $N$ , where  $1 \leq N \leq 100$ .

## Output

Print the factorial of  $N$ .

## Example

For an input of **25**, you would print **15511210043330985984000000**.

**Note:** Factorials of  $N > 20$  can't be stored even in a **64-bit** long long variable. Big integers must be used for such calculations. Languages like Java, Python, Ruby etc. can handle big integers, but we need to write additional code in C/C++ to handle huge values.

We recommend solving this challenge using BigIntegers.

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Submissions: 37692

Max Score: 20

Difficulty: Medium

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C#



```
1 using System;
2 using System.Collections.Generic;
3 using System.IO;
4 using System.Linq;
5 using System.Numerics;
6
7 class Solution {
8
9     static void Main(string[] args)
10    {
11        int n = Convert.ToInt32(Console.ReadLine());
12        if ( n <= 1 )
13        {
14            Console.WriteLine(1);
15            return;
16        }
17    }
```

```
18     BigInteger factorial = new BigInteger(1);
19     for (int i = 2; i < (n + 1); i++)
20     {
21         factorial *= i;
22     }
23
24     Console.WriteLine(factorial);
25
26 }
27
28 }
29
```

Line: 6 Col: 1

 [Upload Code as File](#)☐ Test against custom input[Run Code](#)[Submit Code](#)

## Congrats, you solved this challenge!

✓ Test Case #0

✓ Test Case #3

✓ Test Case #6

✓ Test Case #9

✓ Test Case #1

✓ Test Case #4

✓ Test Case #7

✓ Test Case #10

✓ Test Case #2

✓ Test Case #5

✓ Test Case #8

✓ Test Case #11

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