Extra Long Factorials

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The factorial of the integer n, written $n!$, is defined as:

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

Calculate and print the factorial of a given integer.

For example, if $n = 30$, we calculate $30 \times 29 \times 28 \times \cdots \times 2 \times 1$ and get $265252859812191058636308480000000$.

Function Description

Complete the extraLongFactorials function in the editor below. It should print the result and return.

extraLongFactorials has the following parameter(s):

- n: an integer

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.

Input Format

Input consists of a single integer n

Constraints

$1 \leq n \leq 100$

Output Format

Print the factorial of n.

Sample Input

25

Sample Output

15511210043330985984000000

Explanation

$25! = 25 \times 24 \times 23 \times \cdots \times 3 \times 2 \times 1$

Change Theme Language Python 3

```
1  #!/bin/python3
```

```
import math
import os
import random
import re
import sys

#
# Complete the 'extraLongFactorials' function below.
#
# The function accepts INTEGER n as parameter.
#

def extraLongFactorials(n):
    # Write your code here
    result = 1
    for i in range(1, n+1):
        result *= i
    print(result)

if __name__ == '__main__':
    n = int(input().strip())

    extraLongFactorials(n)
```

EMACS Line: 21 Col: 5

Upload Code as File | Test against custom input | Run Code | Submit Code

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11% 1005.2/2200

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You solved this challenge. Would you like to challenge your friends?

Next Challenge

Test case 2

Test case 8

Hidden Test Case

Unlock this testcase for 5 hackos.

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Test case 9

Test case 10

Test case 11

Test case 0

Test case 1