🟩 Prepare > Algorithms > Implementation > Extra Long Factorials

Exit Full Screen View

Problem

Submissions

Leaderboard

Discussions

Editorial

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 C#

```
using System.CodeDom.Compiler;
using System.Collections.Generic
using System.Collections;
using System.ComponentModel;
using System.Diagnostics.CodeAna
using System.Globalization;
using System.IO;
using System.Linq;
using System.Reflection;
using System.Runtime.Serializati
using System.Text.RegularExpress
using System.Text;
using System;

class Result
{

    /*
     * Complete the 'extraLongFa
     *
     * The function accepts INTE
     */

    public static void extraLong
    {

    }

}

class Solution
{
    public static void Main(stri
    {
        int n = Convert.ToInt32(

        Result.extraLongFactoria
    }
}
```