Extra Long Factorials

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

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