

## Problem 2: Factorial!

Difficulty: Easy

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### Problem Background

Factorials make numbers appear exciting! Represented by an exclamation point after an integer, a factorial of a number is equal to the product of that number and all positive integers less than it. For example,  $3!$  is equal to  $1 * 2 * 3 = 6$ .



### Problem Description

Write a program that can calculate the factorial of a given integer. Be careful; factorials get *very* large, *very* fast.

### Sample Input

The first line of your program's input, **received from the standard input channel**, will contain a positive integer representing the number of test cases. Each test case will include a single line containing a positive integer.

```
2
3
4
```

### Sample Output

For each test case, your program must print the factorial of the given number.

```
6
24
```