
	Problem I	Input: Standard Input Output: Standard Output	
	Divisors		

The **number of divisor** function or **d(n)** is a very interesting function in number theory. It denotes the number of positive divisors of a particular number. For example **d(24) = 8** as **24** has eight divisors **1, 2, 3, 4, 6, 8, 12** and **24**. In mathematics factorial of a positive integer number **n** is written as **n!** and is defined as below:

$$n! = 1 \times 2 \times 3 \times \dots \times n = \prod_{i=1}^n i$$

Another interesting function **AF(n)** (Again factorial in short) is defined as:

$$AF(n) = 1! \times 2! \times 3! \times \dots \times n! = \prod_{i=1}^n i!$$

Given **n**, your job is to find the value of **d(AF(n))**.

Input

The input file contains at most **101** lines of inputs. Each line contains an integer **n** (**0 < n < 5000001**). Input is terminated by a line containing a single zero. This value should not be processed.

Output

For each line of input produce one line of output. This line contains the modulo **10000007** (**10⁸ + 7**) of **d(AF(n))**.

Sample Input

```
1
2
3
4
100
0
```

Output for Sample Input

```
1
2
6
18
59417661
```