

Problem C. Big Factorials

Time limit 1000 ms

Mem limit 524288 kB

Given an integer N , print the trailing 4 digits of $N!$ (N factorial).

$$N! = N \times (N - 1) \times (N - 2) \times \dots \times 1$$

Here are some examples of $N!$ and their last 4 digits.

N	N Factorial ($N!$)	Last 4 Digits
3	6	6
7	5040	5040
11	39916800	6800
15	1307674368000	8000

Input

The input will contain an integer N ($0 < N < 1000$).

Output

Print the last 4 digits of $N!$. In case $N!$ has less than 4 digits, do not print any leading zeros.

Samples

Input	Output
4	24
Input	Output
10	8800