

Problem I. Set Division

Input file: `set.in`
Output file: `set.out`
Time limit: 2 seconds
Memory limit: 256 megabytes

Ruslan has K friends. And all of them have birthday tomorrow. He has bought N different photo albums yesterday, and wants to present these photo albums to his friends. Of course, he can't give less than 1 photo album to anybody. Your task is to calculate how many possible ways is there to do it.

All photo albums are different. Two distributions are considered the same if they differ only by order of albums in the gifts or by the persons receiving gifts.

Input

In the only line of the input file there are two numbers separated by a space — $1 \leq N \leq 1\,000\,000\,000$, $1 \leq K \leq \min(N, 10)$.

Output

Output file should contain one number — the number of possible ways to distribute the albums modulo 2007.

Example

<code>set.in</code>	<code>set.out</code>
3 2	3