B. Mashmokh and ACM

time limit per test: 1 second
memory limit per test: 256 megabytes
input: standard input
output: standard output

Mashmokh's boss, Bimokh, didn't like Mashmokh. So he fired him. Mashmokh decided to go to university and participate in ACM instead of finding a new job. He wants to become a member of Bamokh's team. In order to join he was given some programming tasks and one week to solve them. Mashmokh is not a very experienced programmer. Actually he is not a programmer at all. So he wasn't able to solve them. That's why he asked you to help him with these tasks. One of these tasks is the following.

A sequence of l integers $b_1, b_2, ..., b_l$ $(1 \le b_1 \le b_2 \le ... \le b_l \le n)$ is called *good* if each number divides (without a remainder) by the next number in the sequence. More formally for all i $(1 \le i \le l - 1)$.

Given n and k find the number of good sequences of length k. As the answer can be rather large print it modulo 1000000007 $(10^9 + 7)$.

Input

The first line of input contains two space-separated integers n, k $(1 \le n, k \le 2000)$.

Output

Output a single integer — the number of good sequences of length k modulo 1000000007 $(10^9 + 7)$.

Examples

input
3 2
output
5

input
6 4
output
39

input
2 1
output
2

Note

In the first sample the good sequences are: [1, 1], [2, 2], [3, 3], [1, 2], [1, 3].

Codeforces Round #240 (Div. 1)
Finished

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Problem tags

combinatorics dp

No tag edit access

→ Contest materials

- Announcement
- Tutorial