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, ..., *bl* (1 ≤ *b*1 ≤ *b*2 ≤ ... ≤ *bl* ≤ *n*) is called *good* if each number divides (without a remainder) by the next number in the sequence. More formally https://espresso.codeforces.com/d70c60c547e2902d317d1b6b902e3ed28e695ae0.png for all *i* (1 ≤ *i* ≤ *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 (109 + 7).

**Input**

The first line of input contains two space-separated integers *n*, *k* (1 ≤ *n*, *k* ≤ 2000).

**Output**

Output a single integer — the number of good sequences of length *k* modulo 1000000007 (109 + 7).

**Examples**

**input**

**Copy**

3 2

**output**

**Copy**

5

**input**

**Copy**

6 4

**output**

**Copy**

39

**input**

**Copy**

2 1

**output**

**Copy**

2

**Note**

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

1. **#include**<bits/stdc++.h>
2. **#define** **int** **long** **long** **int**
3. **#define** pb push\_back
4. **#define** inf 1e9
5. **#define** pp pop\_back
6. **#define** pii pair<**int**,**int**>
7. **#define** vec **vector<int>**
8. **#define** mp make\_pair
9. **using** **namespace** std;
10. **int** mod=1e9+7;
11. **int32\_t** main()
12. {
13. ios\_base::sync\_with\_stdio(**false**);
14. cin.tie(NULL);
15. cout.tie(NULL);
16. **int** tt=1;
17. **//cin>>tt;**
18. **while**(tt--)
19. {
20. **int** n,k;
21. cin>>n>>k;
22. **int** dp[2001][2001];
23. memset(dp,0,**sizeof**(dp));
24. dp[0][1]=1;
25. **for**(**int** q=1;q<=k;q++){
27. **for**(**int** i=1;i<=n;i++)
28. {
29. **for**(**int** j=i;j<=n;j+=i)
30. {
31. dp[q][j]=(dp[q][j]+dp[q-1][i])%mod;
32. }
33. }
34. }
35. **int** ans=0;
36. **for**(**int** i=1;i<=n;i++)
37. ans=(ans+dp[k][i])%mod;
38. cout<<ans<<**"\n"**;
39. }
40. }