Problem Statement

Your friend is a game freak and he bought a new game recently. He called you to his home to play along with him. But you are not interested in such games but was forced to accompany him. The game contained a certain number of levels and some magic stones in some levels. One has to defeat monsters at each level and proceed to the next level. But in order to proceed to some level, you have to get the magic stone. After acquiring the magic stone you will be teleported to a level (that might not be the next level, it could be any level). While your friend is focusing to finish the game you are interested in finding a total number of ways to reach level n from level 1.

Note: The game was designed such that there are no cycles detected. Means you won't end in an endless loop.

Input

The first line of the input contains N and M. The number of levels and number of magic stones respectively.

Next M lines contain two integers u and v, indicating that acquiring a magic stone at u^{th} level transfers you to v^{th} level.

Constraints

1 <= N <= 100000,
1 <= M <= 200000,
1 <= u, v <= N.

Output

Print the number of ways you can complete this level. Since this number could be high, print it modulo 1000000007.

Example 1

4 5
1 2
2 4
1 3
3 4
1 4

Output 1

3