

1923. Longest Common Subpath

Description

There is a country of `n` cities numbered from `0` to `n - 1`. In this country, there is a road connecting **every pair** of cities.

There are `m` friends numbered from `0` to `m - 1` who are traveling through the country. Each one of them will take a path consisting of some cities. Each path is represented by an integer array that contains the visited cities in order. The path may contain a city **more than once**, but the same city will not be listed consecutively.

Given an integer `n` and a 2D integer array `paths` where `paths[i]` is an integer array representing the path of the `ith` friend, return *the length of the longest common subpath that is shared by every friend's path, or 0 if there is no common subpath at all*.

A **subpath** of a path is a contiguous sequence of cities within that path.

Example 1:

Input: `n = 5, paths = [[0,1,2,3,4],`
`[2,3,4],`
`[4,0,1,2,3]]`

Output: `2`

Explanation: The longest common subpath is `[2,3]`.

Example 2:

Input: `n = 3, paths = [[0],[1],[2]]`

Output: `0`

Explanation: There is no common subpath shared by the three paths.

Example 3:

Input: `n = 5, paths = [[0,1,2,3,4],`
`[4,3,2,1,0]]`

Output: `1`

Explanation: The possible longest common subpaths are `[0]`, `[1]`, `[2]`, `[3]`, and `[4]`. All have a length of 1.

Constraints:

- `1 <= n <= 105`
- `m == paths.length`
- `2 <= m <= 105`
- `sum(paths[i].length) <= 105`
- `0 <= paths[i][j] < n`
- The same city is not listed multiple times consecutively in `paths[i]`.

