

5803. Longest Common Subpath

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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 i^{th} 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.

User Accepted:	0
User Tried:	1
Total Accepted:	0
Total Submissions:	1
Difficulty:	Hard

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:


- $1 \leq n \leq 10^5$
- $m == \text{paths.length}$
- $2 \leq m \leq 10^5$
- $\sum(\text{paths}[i].\text{length}) \leq 10^5$
- $0 \leq \text{paths}[i][j] < n$
- The same city is not listed multiple times consecutively in `paths[i]`.

JavaScript



```
1 /**
2  * @param {number} n
3  * @param {number[][]} paths
4  * @return {number}
```

```
5  */
6  var longestCommonSubpath = function(n, paths) {
7
8  };
```

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