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Solution

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class Solution {

public int minReorder(int n, int[][] connections) {

}

}

1466. Reorder Routes to Make All Paths Lead to the City Zero

Medium

1372

35

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There are n cities numbered from 0 to $n - 1$ and $n - 1$ roads such that there is only one way to travel between two different cities (this network form a tree). Last year, The ministry of transport decided to orient the roads in one direction because they are too narrow.

Roads are represented by `connections` where `connections[i] = [ai, bi]` represents a road from city `ai` to city `bi`.

This year, there will be a big event in the capital (city `0`), and many people want to travel to this city.

Your task consists of reorienting some roads such that each city can visit the city `0`. Return the **minimum** number of edges changed.

It's **guaranteed** that each city can reach city `0` after reorder.

Example 1:

```
graph LR; 0((0)) --> 1((1)); 1((1)) --> 3((3)); 2((2)) --> 3((3)); 3((3)) --> 4((4)); 4((4)) --> 5((5));
```

Input:

`n = 6, connections = [[0,1],[1,3],[2,3],[4,0],[4,5]]`

Output: 3

Explanation: Change the direction of edges show in red such that each node can reach the node 0 (capital).

Example 2:

```
graph LR; 0((0)) --> 1((1)); 1((1)) --> 2((2)); 2((2)) --> 3((3)); 3((3)) --> 4((4));
```

Input:

`n = 5, connections = [[1,0],[1,2],[3,2],[3,4]]`

Output: 2

Explanation: Change the direction of edges show in red such that each node can reach the node 0 (capital).

Example 3:

Input:

`n = 3, connections = [[1,0],[2,0]]`

Output: 0

Constraints:

- $2 \leq n \leq 5 \cdot 10^4$
- `connections.length == n - 1`
- `connections[i].length == 2`
- $0 \leq a_i, b_i \leq n - 1$
- $a_i \neq b_i$

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