2368. Reachable Nodes With Restrictions

Description

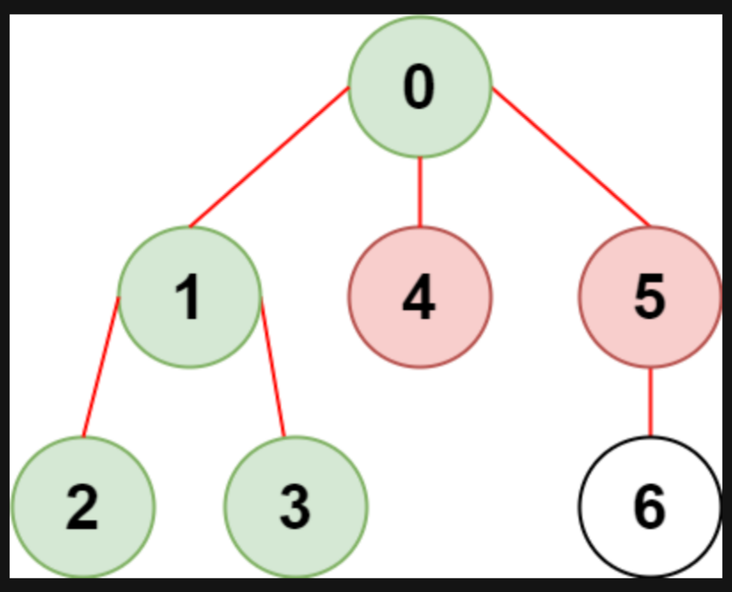
There is an undirected tree with `n` nodes labeled from `0` to `n - 1` and `n - 1` edges.

You are given a 2D integer array `edges` of length `n - 1` where `edges[i] = [a_i, b_i]` indicates that there is an edge between nodes `a_i` and `b_i` in the tree. You are also given an integer array `restricted` which represents **restricted** nodes.

Return *the **maximum** number of nodes you can reach from node `0` without visiting a restricted node.*

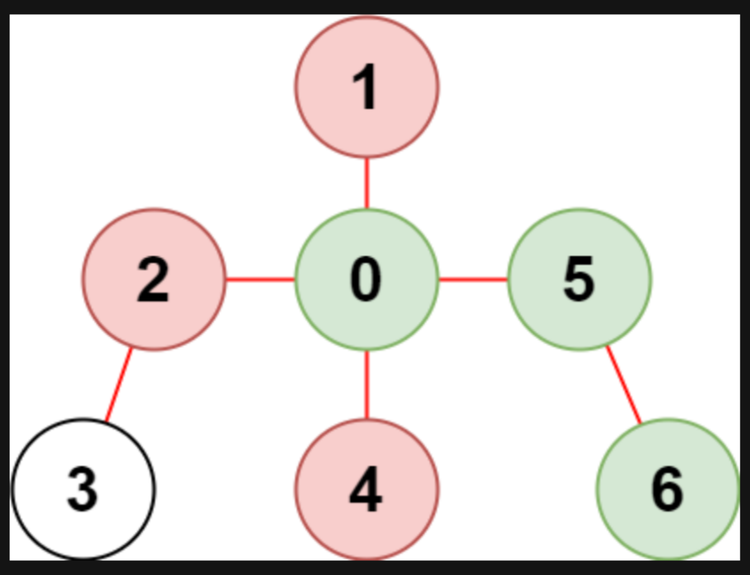
Note that node `0` will **not** be a restricted node.

Example 1:




```
Input: n = 7, edges = [[0,1],[1,2],[3,1],[4,0],[0,5],[5,6]], restricted = [4,5]
Output: 4
Explanation: The diagram above shows the tree.
We have that [0,1,2,3] are the only nodes that can be reached from node 0 without visiting a restricted node.
```

Example 2:




```
Input: n = 7, edges = [[0,1],[0,2],[0,5],[0,4],[3,2],[6,5]], restricted = [4,2,1]
Output: 3
Explanation: The diagram above shows the tree.
We have that [0,5,6] are the only nodes that can be reached from node 0 without visiting a restricted node.
```

Constraints:

- `2 <= n <= 10^5`
- `edges.length == n - 1`
- `edges[i].length == 2`
- `0 <= a_i, b_i < n`
- `a_i != b_i`
- `edges` represents a valid tree.
- `1 <= restricted.length < n`
- `1 <= restricted[i] < n`
- All the values of `restricted` are **unique**.