2440. Create Components With Same Value

Description

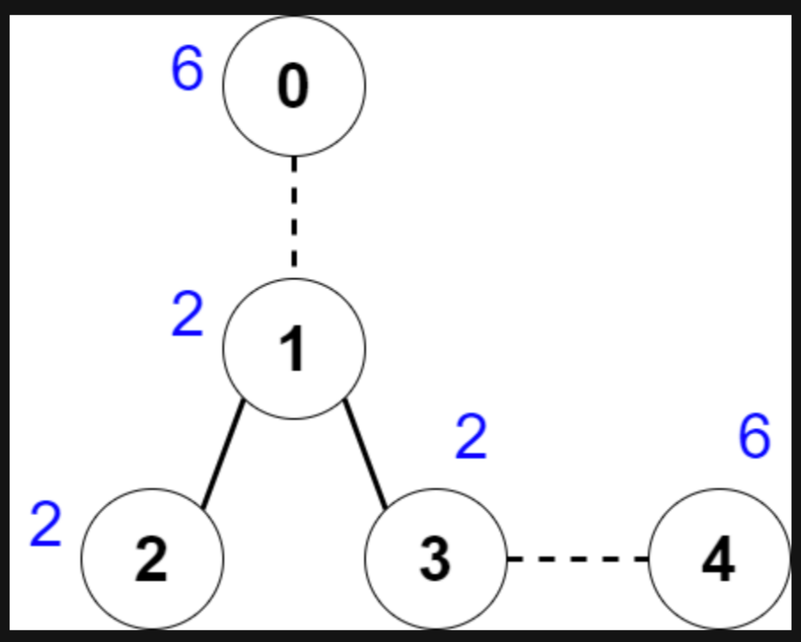
There is an undirected tree with `n` nodes labeled from `0` to `n - 1`.

You are given a **0-indexed** integer array `nums` of length `n` where `nums[i]` represents the value of the `i th` node. You are also 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 allowed to **delete** some edges, splitting the tree into multiple connected components. Let the **value** of a component be the sum of **all** `nums[i]` for which node `i` is in the component.

Return *the **maximum** number of edges you can delete, such that every connected component in the tree has the same value.*

Example 1:




```
Input: nums = [6,2,2,2,6], edges = [[0,1],[1,2],[1,3],[3,4]]
Output: 2
Explanation: The above figure shows how we can delete the edges [0,1] and [3,4]. The created components are nodes [0], [1,2,3] and [4]. The sum of the values in each component equals 6. It can be proven that no better deletion exists, so the answer is 2.
```

Example 2:

```
Input: nums = [2], edges = []
Output: 0
Explanation: There are no edges to be deleted.
```

Constraints:

- `1 <= n <= 2 * 10 4`
- `nums.length == n`
- `1 <= nums[i] <= 50`
- `edges.length == n - 1`
- `edges[i].length == 2`
- `0 <= edges[i][0], edges[i][1] <= n - 1`
- `edges` represents a valid tree.