5510. Remove Max Number of Edges to Keep Graph Fully Traversable

ntest/weekly-contest-205/problems/remove-max-number-of-edges-to-keep-graph-fully-traversable/submissions/)

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Alice and Bob have an undirected graph of `n` nodes and 3 types of edges:

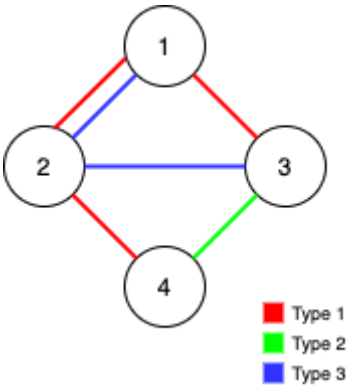
- Type 1: Can be traversed by Alice only.
- Type 2: Can be traversed by Bob only.
- Type 3: Can by traversed by both Alice and Bob.

Given an array `edges` where `edges[i] = [type_i, u_i, v_i]` represents a bidirectional edge of type `type_i` between nodes `u_i` and `v_i`, find the maximum number of edges you can remove so that after removing the edges, the graph can still be fully traversed by both Alice and Bob. The graph is fully traversed by Alice and Bob if starting from any node, they can reach all other nodes.

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

Return *the maximum number of edges you can remove, or return* `-1` *if it's impossible for the graph to be fully traversed by Alice and Bob.*

Example 1:




```
Input: n = 4, edges = [[3,1,2],[3,2,3],[1,1,3],[1,2,4],[1,1,2],[2,3,4]]
Output: 2
Explanation: If we remove the 2 edges [1,1,2] and [1,1,3]. The graph will still be fully t
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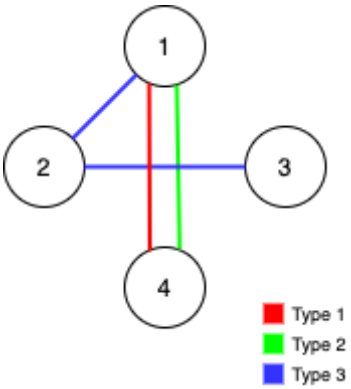
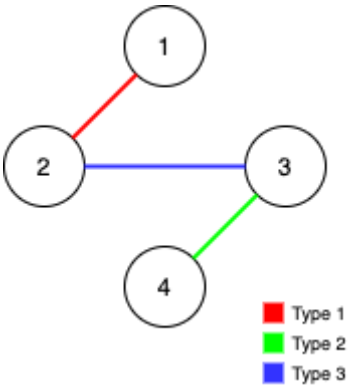
Example 2:




```
Input: n = 4, edges = [[3,1,2],[3,2,3],[1,1,4],[2,1,4]]
Output: 0
Explanation: Notice that removing any edge will not make the graph fully traversable by Al
```

Example 3:




```
Input: n = 4, edges = [[3,2,3],[1,1,2],[2,3,4]]
Output: -1
Explanation: In the current graph, Alice cannot reach node 4 from the other nodes. Likewis
```

Constraints:

- `1 <= n <= 10^5`
- `1 <= edges.length <= min(10^5, 3 * n * (n-1) / 2)`
- `edges[i].length == 3`
- `1 <= edges[i][0] <= 3`
- `1 <= edges[i][1] < edges[i][2] <= n`
- All tuples $(type_i, u_i, v_i)$ are distinct.

JavaScript

```
/**
 * @param {number} n
 * @param {number[][]} edges
```

```
 * @return {number}
 */
var maxNumEdgesToRemove = function(n, edges) {

};
```

Custom Testcase | Use Example Testcases

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