

2508. Add Edges to Make Degrees of All Nodes Even

Description

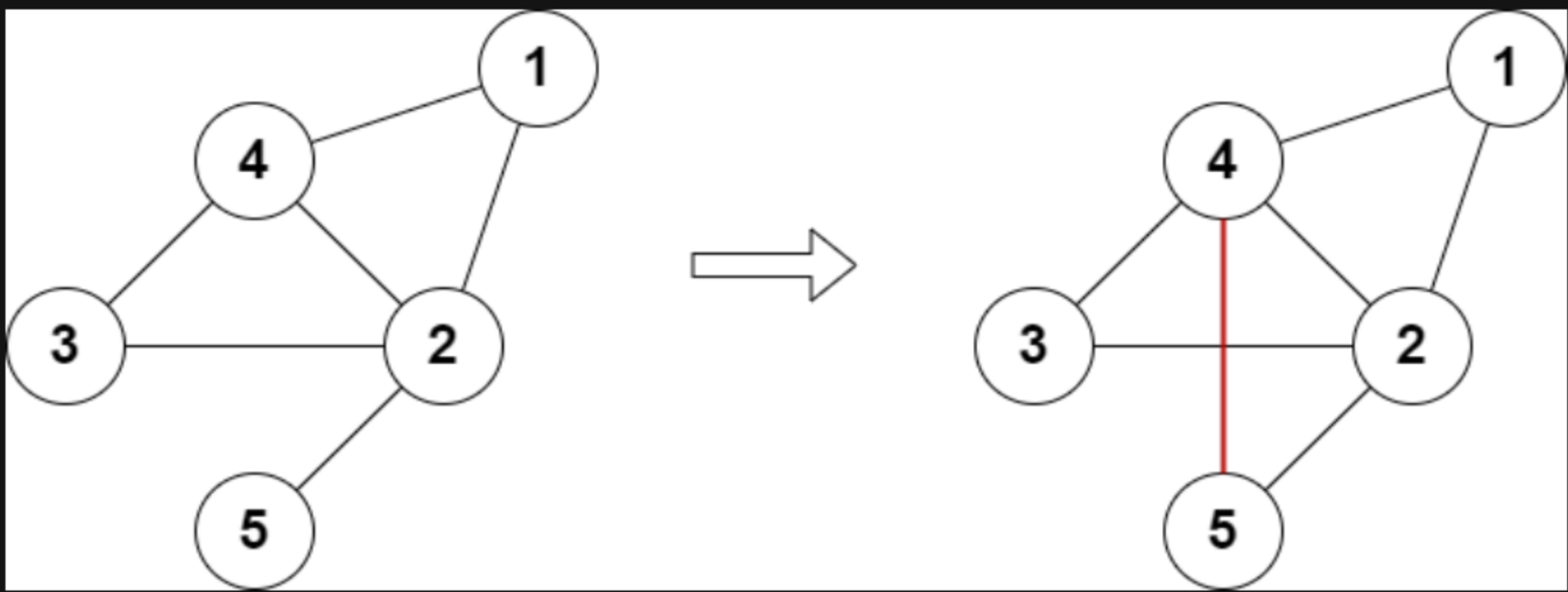
There is an **undirected** graph consisting of `n` nodes numbered from `1` to `n`. You are given the integer `n` and a **2D** array `edges` where `edges[i] = [ai, bi]` indicates that there is an edge between nodes `ai` and `bi`. The graph can be disconnected.

You can add **at most** two additional edges (possibly none) to this graph so that there are no repeated edges and no self-loops.

Return `true` *if it is possible to make the degree of each node in the graph even, otherwise return* `false`.

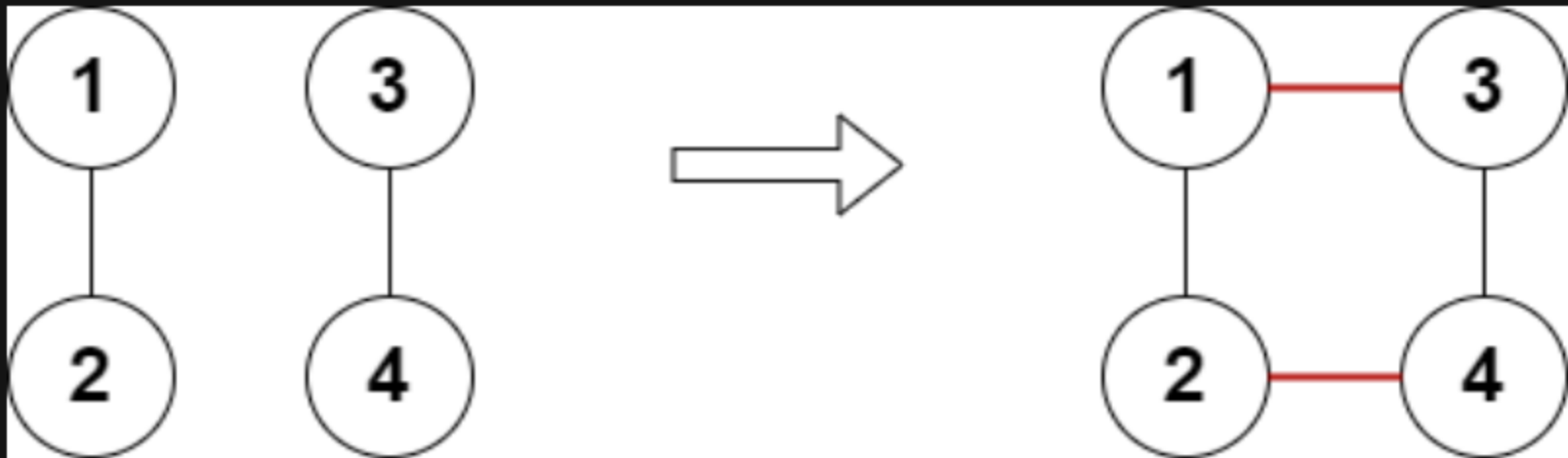
The degree of a node is the number of edges connected to it.

Example 1:



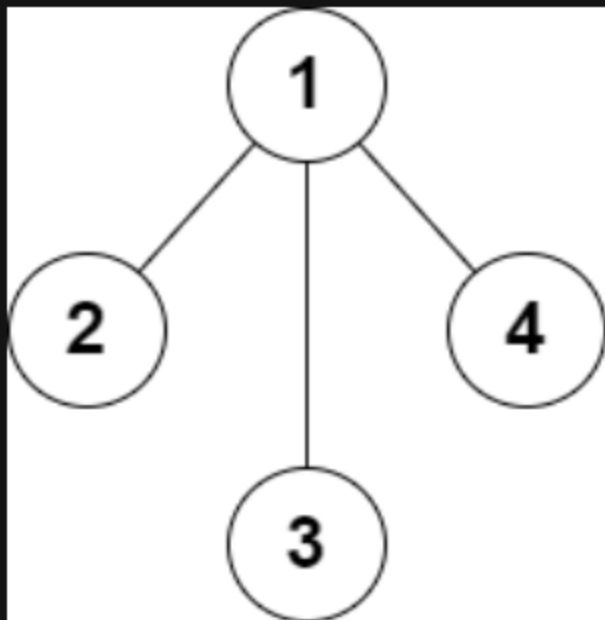
Input: `n = 5, edges = [[1,2],[2,3],[3,4],[4,2],[1,4],[2,5]]`
Output: `true`
Explanation: The above diagram shows a valid way of adding an edge. Every node in the resulting graph is connected to an even number of edges.

Example 2:



Input: `n = 4, edges = [[1,2],[3,4]]`
Output: `true`
Explanation: The above diagram shows a valid way of adding two edges.

Example 3:



Input: `n = 4, edges = [[1,2],[1,3],[1,4]]`
Output: `false`
Explanation: It is not possible to obtain a valid graph with adding at most 2 edges.

Constraints:

- `3 <= n <= 105`
- `2 <= edges.length <= 105`
- `edges[i].length == 2`
- `1 <= ai, bi <= n`
- `ai != bi`
- There are no repeated edges.

