1319. Number of Operations to Make Network Connected

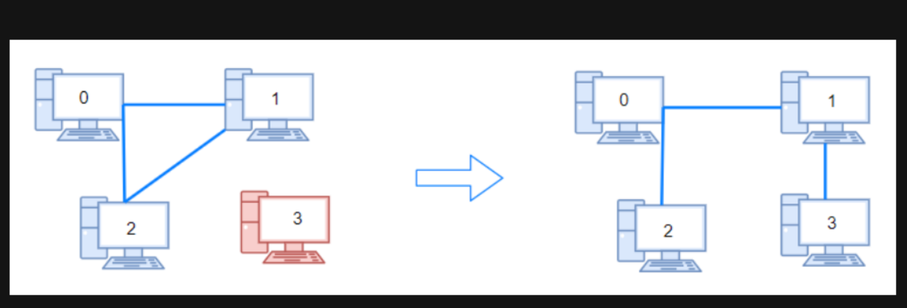
Description

There are `n` computers numbered from `0` to `n - 1` connected by ethernet cables `connections` forming a network where `connections[i] = [a i , b i ]` represents a connection between computers `a i` and `b i` . Any computer can reach any other computer directly or indirectly through the network.

You are given an initial computer network `connections` . You can extract certain cables between two directly connected computers, and place them between any pair of disconnected computers to make them directly connected.

Return *the minimum number of times you need to do this in order to make all the computers connected* . If it is not possible, return `-1` .

Example 1:




```
Input: n = 4, connections = [[0,1],[0,2],[1,2]]
Output: 1
Explanation: Remove cable between computer 1 and 2 and place between computers 1 and 3.
```

Example 2:


```
Input: n = 6, connections = [[0,1],[0,2],[0,3],[1,2],[1,3]]
Output: 2
```

Example 3:

```
Input: n = 6, connections = [[0,1],[0,2],[0,3],[1,2]]
Output: -1
Explanation: There are not enough cables.
```

Constraints:

- `1 <= n <= 10 5`
- `1 <= connections.length <= min(n * (n - 1) / 2, 10 5 )`
- `connections[i].length == 2`
- `0 <= a i , b i < n`
- `a i != b i`
- There are no repeated connections.
- No two computers are connected by more than one cable.