

In this problem, a tree is an undirected graph that is connected and has no cycles.

The given input is a graph that started as a tree with  $N$  nodes (with distinct values  $1, 2, \dots, N$ ), with one additional edge added. The added edge has two different vertices chosen from 1 to  $N$ , and was not an edge that already existed.

The resulting graph is given as a  $2D$ -array of edges. Each element of edges is a pair  $[u, v]$  with  $u < v$ , that represents an undirected edge connecting nodes  $u$  and  $v$ .

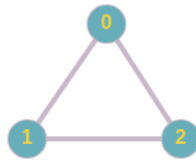
Return an edge that can be removed so that the resulting graph is a tree of  $N$  nodes. If there are multiple answers, return the answer that occurs last in the given  $2D$ -array. The answer edge  $[u, v]$  should be in the same format, with  $u < v$ .

**Example 1:**

**Input:** `[[1,2],[1,3],[2,3]]`

**Output:** `[2,3]`

**Explanation:** The given undirected graph will be like this:

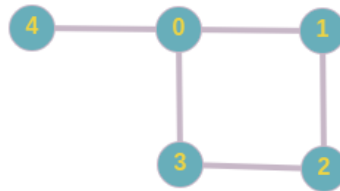


**Example 2:**

**Input:** `[[1,2], [2,3], [3,4], [1,4], [1,5]]`

**Output:** `[1,4]`

**Explanation:** The given undirected graph will be like this:



**Note:**

- The size of the input  $2D$ -array will be between 3 and 1000
- Every integer represented in the  $2D$ -array will be between 1 and  $N$ , where  $N$  is the size of the input array.