587. Erect the Fence

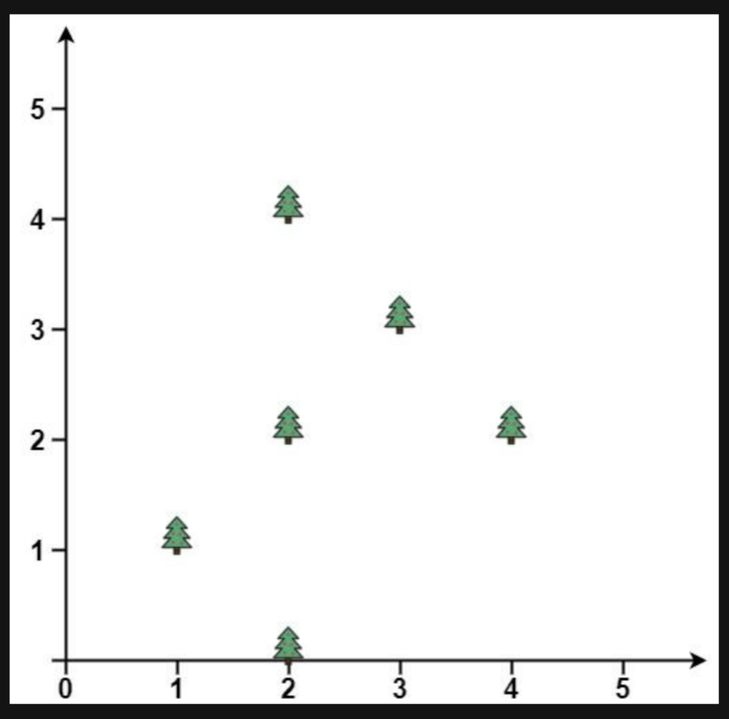
Description

You are given an array `trees` where `trees[i] = [x_i, y_i]` represents the location of a tree in the garden.

Fence the entire garden using the minimum length of rope, as it is expensive. The garden is well-fenced only if **all the trees are enclosed**.

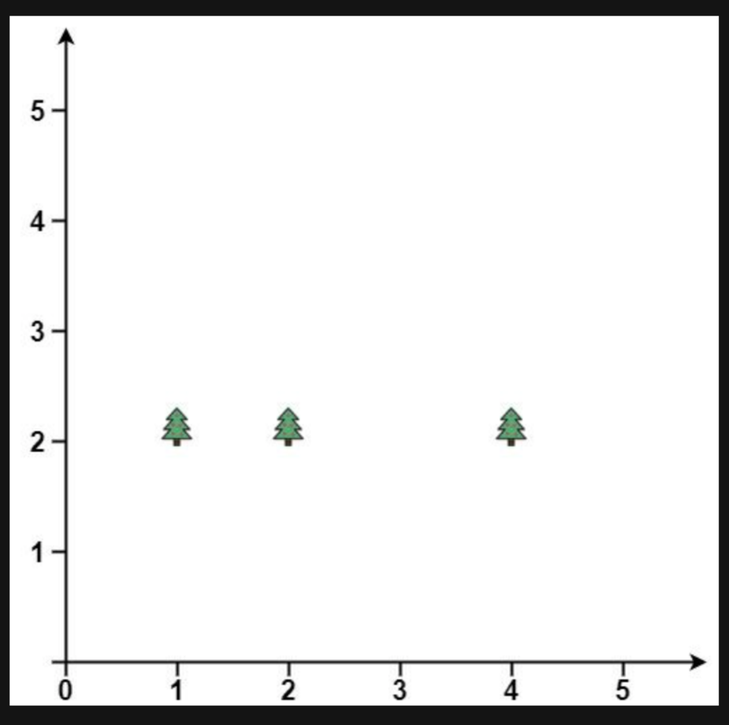
Return *the coordinates of trees that are exactly located on the fence perimeter*. You may return the answer in **any order**.

Example 1:




```
Input: trees = [[1,1],[2,2],[2,0],[2,4],[3,3],[4,2]]
Output: [[1,1],[2,0],[4,2],[3,3],[2,4]]
Explanation: All the trees will be on the perimeter of the fence except the tree at [2, 2], which will be inside the fence.
```

Example 2:




```
Input: trees = [[1,2],[2,2],[4,2]]
Output: [[4,2],[2,2],[1,2]]
Explanation: The fence forms a line that passes through all the trees.
```

Constraints:

- `1 <= trees.length <= 3000`
- `trees[i].length == 2`
- `0 <= x_i, y_i <= 100`
- All the given positions are **unique**.