## 356. Line Reflection

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Given n points on a 2D plane, find if there is such a line parallel to the y-axis that reflects the given points symmetrically.

In other words, answer whether or not if there exists a line that after reflecting all points over the given line, the original points' set is the same as the reflected ones.
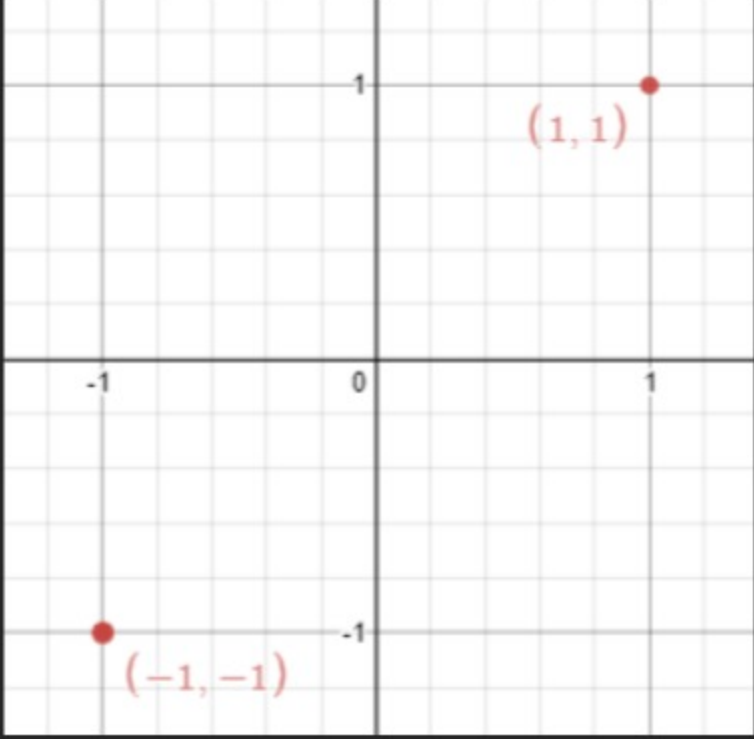
Note that there can be repeated points.

Example 1:
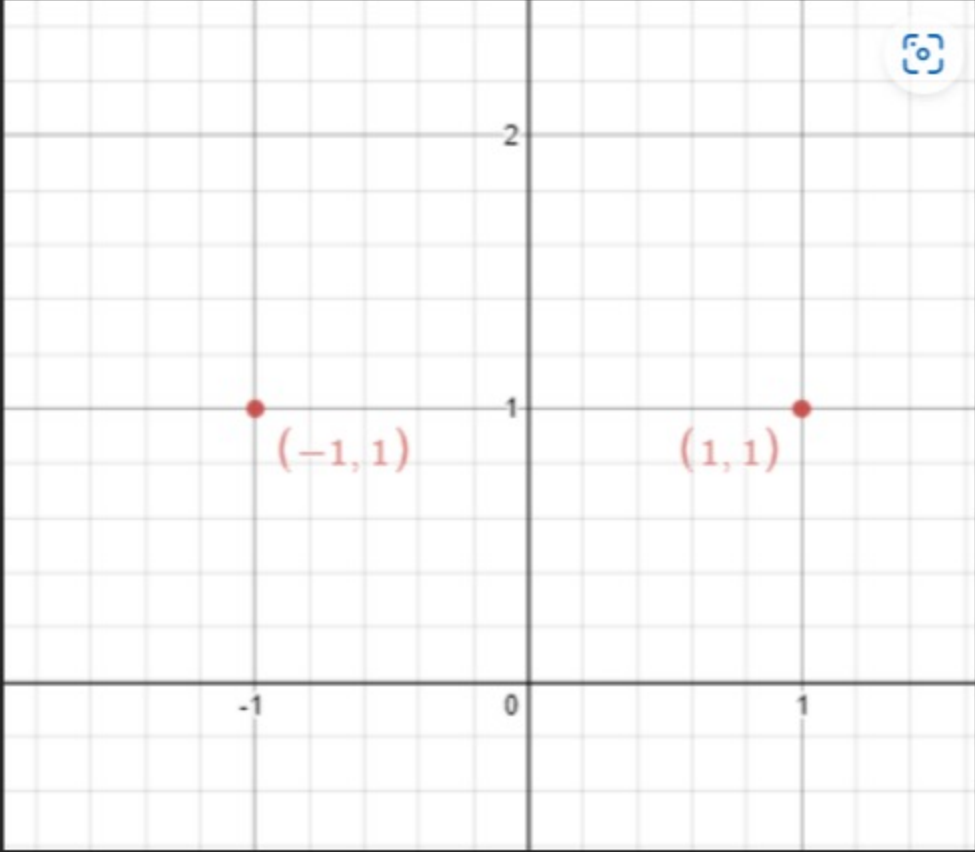

```
Input: points = [[1,1],[-1,1]]
Output: true
Explanation: We can choose the line x = 0.
```

Example 2:


```
Input: points = [[1,1],[-1,-1]]
Output: false
Explanation: We can't choose a line.
```

Constraints:

- `n == points.length`
- $1 \le n \le 10^4$
- $-10^8 \le$ `points[i][j]` $\le 10^8$

Follow up: Could you do better than $O(n^2)$?

Seen this question in a real interview before? 1/5

Yes   No

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0 - 3 months
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💡 Hint 1 ⌃
Find the smallest and largest x-value for all points.

💡 Hint 2 ⌃
If there is a line then it should be at y = (minX + maxX) / 2.

💡 Hint 3 ⌃
For each point, make sure that it has a reflected point in the opposite side.

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