# 5540. Widest Vertical Area Between Two Points Containing No Points

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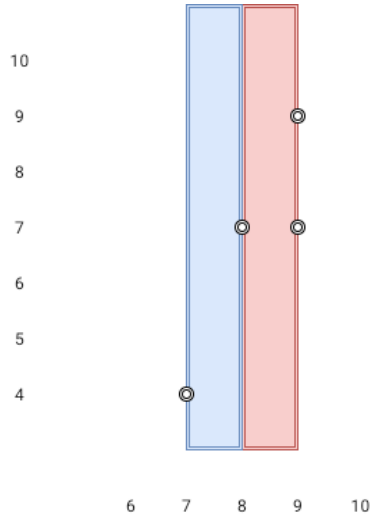
Given `n points` on a 2D plane where `points[i] = [x_i, y_i]` , Return *the **widest vertical area** between two points such that no points are inside the area.*

A **vertical area** is an area of fixed-width extending infinitely along the y-axis (i.e., infinite height). The **widest vertical area** is the one with the maximum width.

Note that points **on the edge** of a vertical area **are not** considered included in the area.

| | |
|---|---|
| User Accepted: | 1106 |
| User Tried: | 1163 |
| Total Accepted: | 1113 |
| Total Submissions: | 1208 |
| Difficulty: | Medium |

**Example 1:**




```
Input: points = [[8,7],[9,9],[7,4],[9,7]]
Output: 1
Explanation: Both the red and the blue area are optimal.
```

**Example 2:**

```
Input: points = [[3,1],[9,0],[1,0],[1,4],[5,3],[8,8]]
Output: 3
```

**Constraints:**

- `n == points.length`
- `2 <= n <= 10^5`
- `points[i].length == 2`
- `0 <= x_i, y_i <= 10^9`

Java

```
class Solution {
    public int maxWidthOfVerticalArea(int[][] points) {

    }
}
```