5540. Widest Vertical Area Between Two Points Containing No Points

My Submissions (/contest/biweekly-contest-38/problems/widest-vertical-area-between-two-points-containing-no-points/submissions/)

Back to Contest (/contest/biweekly-contest-38/)

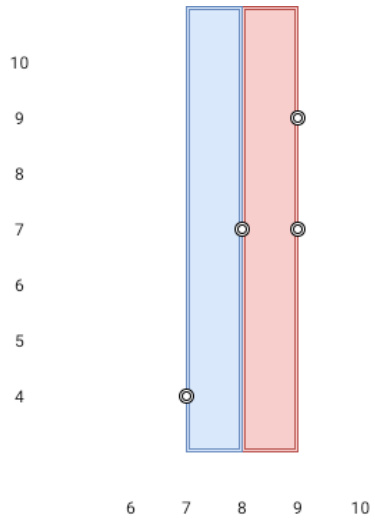
Given `n points` on a 2D plane where `points[i] = [x_i, y_i]` , Return *the **widest vertical area** between two points such that no points are inside the area.*

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`

JavaScript

```
/**
 * @param {number[][]} points
 * @return {number}
 */
const maxWidthOfVerticalArea = (points) => {
    let n = points.length;
    points.sort((a, b) => a[0] - b[0]);
    let max = 0;
    for (let i = 0; i < n; i++) {
        loop:
```

```
        for (let j = i + 1; j < n; j++) {
            for (let k = i; k <= j; k++) {
                if (points[k][0] > points[i][0] && points[k][0] < points[j][0]) break loop;
            }
            let tmp = points[j][0] - points[i][0];
            max = Math.max(max, tmp);
        }
    }
    return max;
};

```

Custom Testcase | Use Example Testcases

Run | Submit

Submission Result: Accepted (/submissions/detail/415240532/) | More Details > (/submissions/detail/415240532/)

Share your acceptance!

1