

5680. Find Nearest Point That Has the Same X or Y Coordinate

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You are given two integers,  $x$  and  $y$ , which represent your current location on a Cartesian grid:  $(x, y)$ . You are also given an array `points` where each `points[i] = [ai, bi]` represents that a point exists at  $(a_i, b_i)$ . A point is **valid** if it shares the same x-coordinate or the same y-coordinate as your location.

Return the index (**0-indexed**) of the **valid** point with the smallest **Manhattan distance** from your current location. If there are multiple, return the **valid** point with the **smallest** index. If there are no valid points, return `-1`.

The **Manhattan distance** between two points  $(x_1, y_1)$  and  $(x_2, y_2)$  is  $abs(x_1 - x_2) + abs(y_1 - y_2)$ .

User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Easy

Example 1:

**Input:** `x = 3, y = 4, points = [[1,2],[3,1],[2,4],[2,3],[4,4]]`  
**Output:** `2`  
**Explanation:** Of all the points, only `[3,1]`, `[2,4]` and `[4,4]` are valid. Of the valid points, `[2,4]` and `[4,4]` have the smallest M

Example 2:

**Input:** `x = 3, y = 4, points = [[3,4]]`  
**Output:** `0`  
**Explanation:** The answer is allowed to be on the same location as your current location.

Example 3:

**Input:** `x = 3, y = 4, points = [[2,3]]`  
**Output:** `-1`  
**Explanation:** There are no valid points.

Constraints:

- `1 <= points.length <= 104`
- `points[i].length == 2`
- `1 <= x, y, ai, bi <= 104`

TypeScript

1

2

3

```
function nearestValidPoint(x: number, y: number, points: number[][]): number {  
  
};
```