

## 469. Convex Polygon Premium

Medium

Topics

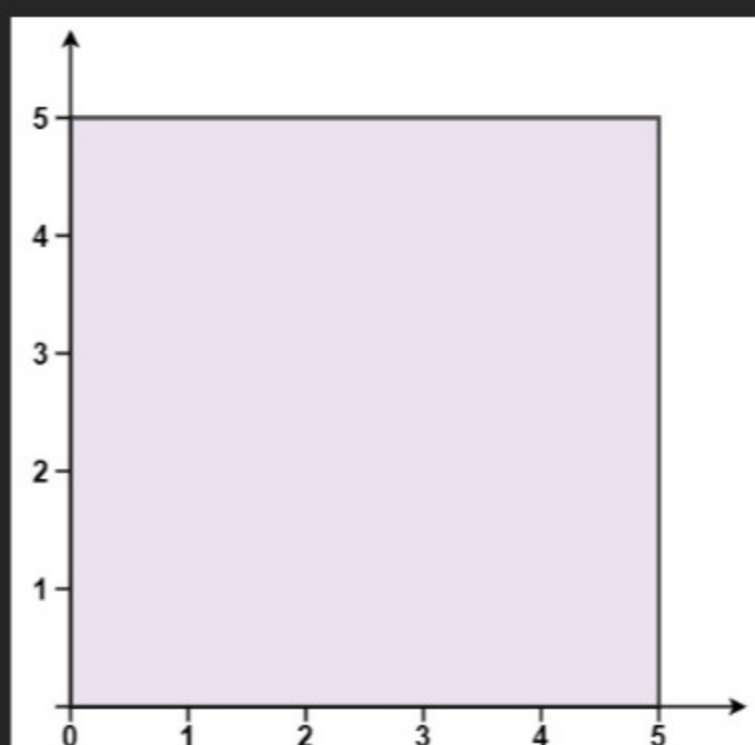
Companies

You are given an array of points on the **X-Y** plane `points` where `points[i] = [xi, yi]`. The points form a polygon when joined sequentially.

Return `true` if this polygon is **convex** and `false` otherwise.

You may assume the polygon formed by given points is always a **simple polygon**. In other words, we ensure that exactly two edges intersect at each vertex and that edges otherwise don't intersect each other.

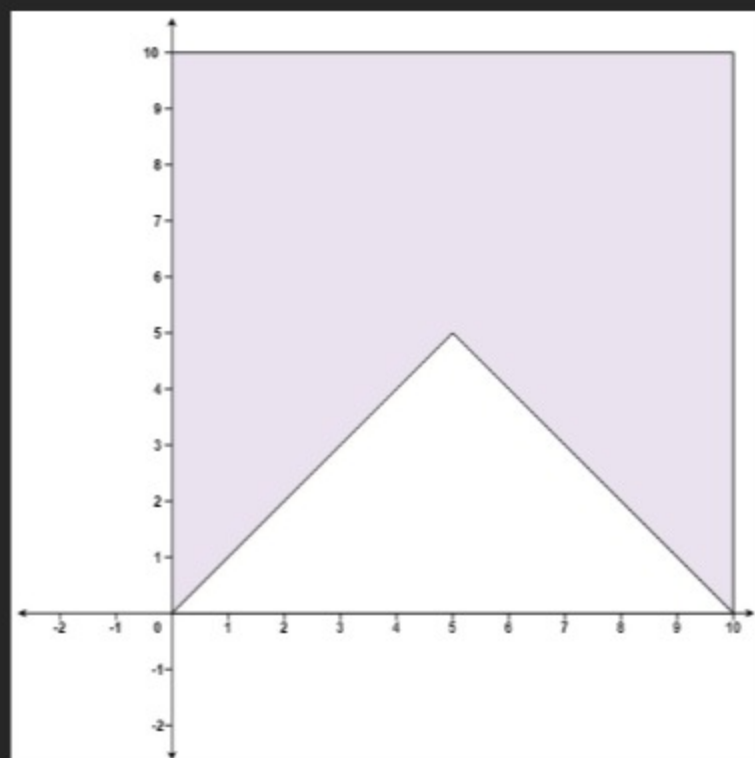
### Example 1:



**Input:** `points = [[0,0],[0,5],[5,5],[5,0]]`

**Output:** `true`

### Example 2:



**Input:** `points = [[0,0],[0,10],[10,10],[10,0],[5,5]]`

**Output:** `false`

### Constraints:

- `3 <= points.length <= 104`
- `points[i].length == 2`
- `-104 <= xi, yi <= 104`
- All the given points are **unique**.

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

Yes

No

Accepted **11K** | Submissions **27.6K** | Acceptance Rate **39.7%**

Topics

Array

Math

Geometry

Companies

0 - 6 months

Google **2**

Discussion (1)