973. K Closest Points to Origin

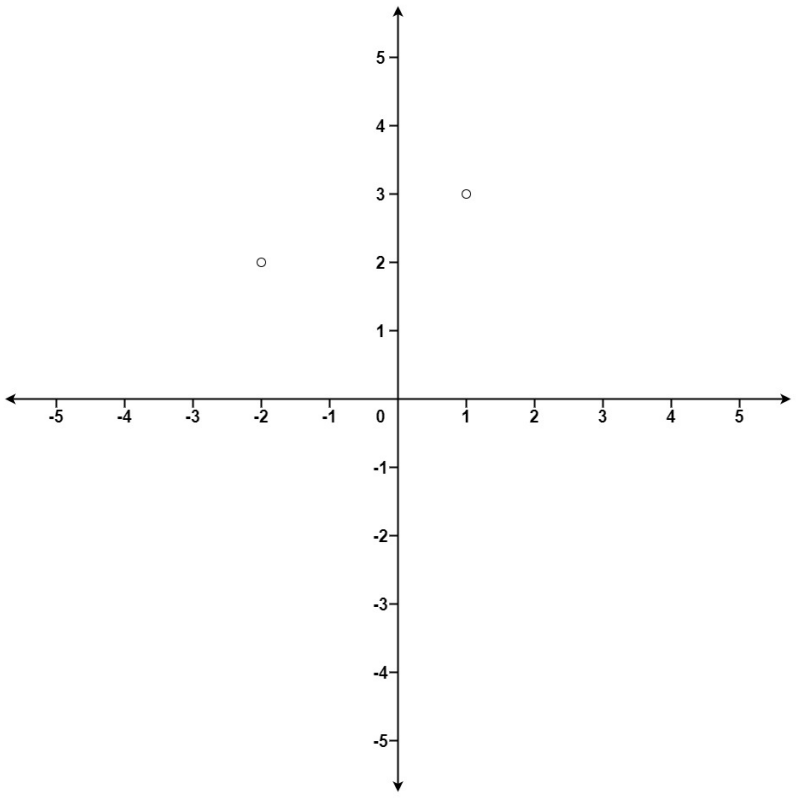
Medium 4786 193 Add to List Share

Given an array of `points` where `points[i] = [x_i, y_i]` represents a point on the **X-Y** plane and an integer `k`, return the `k` closest points to the origin `(0, 0)`.

The distance between two points on the **X-Y** plane is the Euclidean distance (i.e., $\sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2}$).

You may return the answer in **any order**. The answer is **guaranteed** to be **unique** (except for the order that it is in).

Example 1:



Input: points = [[1,3],[-2,2]], k = 1
Output: [[-2,2]]
Explanation:
The distance between (1, 3) and the origin is sqrt(10).
The distance between (-2, 2) and the origin is sqrt(8).
Since sqrt(8) < sqrt(10), (-2, 2) is closer to the origin.
We only want the closest k = 1 points from the origin, so the

C#

```
3        SortedDictionar
List<(int, int)>> dict
SortedDictionary<double
List<(int, int)>>();
4        var x1 = 0;
5        var y1 = 0;
6        foreach(var poi
points)
7        {
8            var x2 = po
9            var y2 = po
10           var dist =
Math.Sqrt((double)(Math
x2, 2) + Math.Pow(y1-y2
11
 if(dict.ContainsKey(di
12           {
13
 dict[dist].Add((x2, y2
14           }
15           else{
16               dict.Ad
new List<(int, int)>{(x
17           }
18       }
19
20       var result = ne
[];
21       var j =0;
22       foreach(var ite
dict)
23       {
24           foreach(var
item.Value)
25           {
26               result[
int[2]{ l.Item1, l.Item
```

Testcase Run Code Result

Accepted Runtime: 132 ms

Your input [[1,3],[-2,2]] 1

Output [[-2,2]]

Expected [[-2,2]]

Console Use Example Testcase