

Problem 939: Minimum Area Rectangle

Problem Information

Difficulty: Medium

Acceptance Rate: 55.20%

Paid Only: No

Tags: Array, Hash Table, Math, Geometry, Sorting

Problem Description

You are given an array of points in the **X-Y** plane `points` where `points[i] = [xi, yi]`.

Return `the minimum area of a rectangle formed from these points, with sides parallel to the X and Y axes`. If there is not any such rectangle, return `0`.

Example 1:



Input: `points = [[1,1],[1,3],[3,1],[3,3],[2,2]]` **Output:** `4`

Example 2:



Input: `points = [[1,1],[1,3],[3,1],[3,3],[4,1],[4,3]]` **Output:** `2`

Constraints:

`1 <= points.length <= 500` `points[i].length == 2` `0 <= xi, yi <= 4 * 104` All the given points are **unique**.

Code Snippets

C++:

```
class Solution {  
public:  
    int minAreaRect(vector<vector<int>>& points) {  
  
    }  
};
```

Java:

```
class Solution {  
    public int minAreaRect(int[][] points) {  
  
    }  
}
```

Python3:

```
class Solution:  
    def minAreaRect(self, points: List[List[int]]) -> int:
```