

Problem 1037: Valid Boomerang

Problem Information

Difficulty: Easy

Acceptance Rate: 0.00%

Paid Only: No

Problem Description

Given an array

points

where

points[i] = [x

i

, y

i

]

represents a point on the

X-Y

plane, return

true

if these points are a

boomerang

.

A

boomerang

is a set of three points that are

all distinct

and

not in a straight line

.

Example 1:

Input:

points = [[1,1],[2,3],[3,2]]

Output:

true

Example 2:

Input:

points = [[1,1],[2,2],[3,3]]

Output:

false

Constraints:

```
points.length == 3
```

```
points[i].length == 2
```

```
0 <= x
```

```
i
```

```
, y
```

```
i
```

```
<= 100
```

Code Snippets

C++:

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

Java:

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

Python3:

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

Python:

```

class Solution(object):
    def isBoomerang(self, points):
        """
        :type points: List[List[int]]
        :rtype: bool
        """

```

JavaScript:

```

/**
 * @param {number[][]} points
 * @return {boolean}
 */
var isBoomerang = function(points) {

};

```

TypeScript:

```

function isBoomerang(points: number[][]): boolean {

};

```

C#:

```

public class Solution {
    public bool IsBoomerang(int[][] points) {

    }
}

```

C:

```

bool isBoomerang(int** points, int pointsSize, int* pointsColSize) {

}

```

Go:

```

func isBoomerang(points [][]int) bool {

}

```

Kotlin:

```
class Solution {  
    fun isBoomerang(points: Array<IntArray>): Boolean {  
  
    }  
}
```

Swift:

```
class Solution {  
    func isBoomerang(_ points: [[Int]]) -> Bool {  
  
    }  
}
```

Rust:

```
impl Solution {  
    pub fn is_boomerang(points: Vec<Vec<i32>>) -> bool {  
  
    }  
}
```

Ruby:

```
# @param {Integer[][]} points  
# @return {Boolean}  
def is_boomerang(points)  
  
end
```

PHP:

```
class Solution {  
  
    /**  
     * @param Integer[][] $points  
     * @return Boolean  
     */  
    function isBoomerang($points) {  
  
    }  
}
```

```
}
```

Dart:

```
class Solution {  
  bool isBoomerang(List<List<int>> points) {  
  
  }  
}
```

Scala:

```
object Solution {  
  def isBoomerang(points: Array[Array[Int]]): Boolean = {  
  
  }  
}
```

Elixir:

```
defmodule Solution do  
  @spec is_boomerang(points :: [[integer]]) :: boolean  
  def is_boomerang(points) do  
  
  end  
end
```

Erlang:

```
-spec is_boomerang(Points :: [[integer()]]) -> boolean().  
is_boomerang(Points) ->  
.
```

Racket:

```
(define/contract (is-boomerang points)  
  (-> (listof (listof exact-integer?)) boolean?)  
)
```

Solutions

C++ Solution:

```
/*
 * Problem: Valid Boomerang
 * Difficulty: Easy
 * Tags: array, math
 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
 * Space Complexity: O(1) to O(n) depending on approach
 */

class Solution {
public:
    bool isBoomerang(vector<vector<int>>& points) {

    }
};
```

Java Solution:

```
/**
 * Problem: Valid Boomerang
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 *
 * Approach: Use two pointers or sliding window technique
 * Time Complexity: O(n) or O(n log n)
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 */

class Solution {
    public boolean isBoomerang(int[][] points) {

    }
}
```

Python3 Solution:

```
"""
Problem: Valid Boomerang
Difficulty: Easy
Tags: array, math
```

```

Approach: Use two pointers or sliding window technique
Time Complexity:  $O(n)$  or  $O(n \log n)$ 
Space Complexity:  $O(1)$  to  $O(n)$  depending on approach
"""

class Solution:
    def isBoomerang(self, points: List[List[int]]) -> bool:
        # TODO: Implement optimized solution
        pass

```

Python Solution:

```

class Solution(object):
    def isBoomerang(self, points):
        """
        :type points: List[List[int]]
        :rtype: bool
        """

```

JavaScript Solution:

```

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/**
 * @param {number[][]} points
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TypeScript Solution:


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function isBoomerang(points: number[][]): boolean {

};

```

C# Solution:

```

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 */

public class Solution {
    public bool IsBoomerang(int[][] points) {

    }
}

```

C Solution:

```

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```

*/

bool isBoomerang(int** points, int pointsSize, int* pointsColSize) {

}

```

Go Solution:

```

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// Time Complexity: O(n) or O(n log n)
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func isBoomerang(points [][]int) bool {

}

```

Kotlin Solution:

```

class Solution {
    fun isBoomerang(points: Array<IntArray>): Boolean {

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class Solution {
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// Approach: Use two pointers or sliding window technique
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impl Solution {
    pub fn is_boomerang(points: Vec<Vec<i32>>) -> bool {

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Ruby Solution:

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# @param {Integer[][]} points
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PHP Solution:

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class Solution {

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