

Problem 1996: The Number of Weak Characters in the Game

Problem Information

Difficulty: Medium

Acceptance Rate: 0.00%

Paid Only: No

Problem Description

You are playing a game that contains multiple characters, and each of the characters has

two

main properties:

attack

and

defense

. You are given a 2D integer array

properties

where

properties[i] = [attack

i

, defense

i

]

represents the properties of the

i

th

character in the game.

A character is said to be

weak

if any other character has

both

attack and defense levels

strictly greater

than this character's attack and defense levels. More formally, a character

i

is said to be

weak

if there exists another character

j

where

attack

j

> attack

i

and

defense

j

> defense

i

.

Return

the number of

weak

characters

.

Example 1:

Input:

properties = [[5,5],[6,3],[3,6]]

Output:

0

Explanation:

No character has strictly greater attack and defense than the other.

Example 2:

Input:

```
properties = [[2,2],[3,3]]
```

Output:

1

Explanation:

The first character is weak because the second character has a strictly greater attack and defense.

Example 3:

Input:

```
properties = [[1,5],[10,4],[4,3]]
```

Output:

1

Explanation:

The third character is weak because the second character has a strictly greater attack and defense.

Constraints:

$2 \leq \text{properties.length} \leq 10$

5

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

```
1 <= attack
```

```
i
```

```
, defense
```

```
i
```

```
<= 10
```

```
5
```

Code Snippets

C++:

```
class Solution {  
public:  
    int numberOfWeakCharacters(vector<vector<int>>& properties) {  
  
    }  
};
```

Java:

```
class Solution {  
public int numberOfWeakCharacters(int[][][] properties) {  
  
}  
}
```

Python3:

```
class Solution:  
    def numberOfWeakCharacters(self, properties: List[List[int]]) -> int:
```

Python:

```
class Solution(object):  
    def numberOfWeakCharacters(self, properties):
```

```
"""
:type properties: List[List[int]]
:rtype: int
"""
```

JavaScript:

```
/**
 * @param {number[][]} properties
 * @return {number}
 */
var numberOfWeakCharacters = function(properties) {
};
```

TypeScript:

```
function numberOfWeakCharacters(properties: number[][]): number {
};
```

C#:

```
public class Solution {
public int NumberOfWeakCharacters(int[][] properties) {

}
```

C:

```
int numberOfWeakCharacters(int** properties, int propertiesSize, int*
propertiesColSize) {

}
```

Go:

```
func numberOfWeakCharacters(properties [][]int) int {
}
```

Kotlin:

```
class Solution {  
    fun numberOfWeakCharacters(properties: Array<IntArray>): Int {  
  
    }  
}
```

Swift:

```
class Solution {  
    func numberOfWeakCharacters(_ properties: [[Int]]) -> Int {  
  
    }  
}
```

Rust:

```
impl Solution {  
    pub fn number_of_weak_characters(properties: Vec<Vec<i32>>) -> i32 {  
  
    }  
}
```

Ruby:

```
# @param {Integer[][]} properties  
# @return {Integer}  
def number_of_weak_characters(properties)  
  
end
```

PHP:

```
class Solution {  
  
    /**  
     * @param Integer[][] $properties  
     * @return Integer  
     */  
    function numberOfWeakCharacters($properties) {  
  
    }
```

```
}
```

Dart:

```
class Solution {  
    int numberOfWeakCharacters(List<List<int>> properties) {  
        }  
    }  
}
```

Scala:

```
object Solution {  
    def numberOfWeakCharacters(properties: Array[Array[Int]]): Int = {  
        }  
    }  
}
```

Elixir:

```
defmodule Solution do  
    @spec number_of_weak_characters(properties :: [[integer]]) :: integer  
    def number_of_weak_characters(properties) do  
  
    end  
    end
```

Erlang:

```
-spec number_of_weak_characters(Properties :: [[integer()]]) -> integer().  
number_of_weak_characters(Properties) ->  
.
```

Racket:

```
(define/contract (number-of-weak-characters properties)  
  (-> (listof (listof exact-integer?)) exact-integer?)  
)
```

Solutions

C++ Solution:

```
/*
 * Problem: The Number of Weak Characters in the Game
 * Difficulty: Medium
 * Tags: array, greedy, sort, stack
 *
 * 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:
    int numberOfWeakCharacters(vector<vector<int>>& properties) {

    }
};
```

Java Solution:

```
/**
 * Problem: The Number of Weak Characters in the Game
 * Difficulty: Medium
 * Tags: array, greedy, sort, stack
 *
 * 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 int numberOfWeakCharacters(int[][] properties) {

    }
}
```

Python3 Solution:

```
"""
Problem: The Number of Weak Characters in the Game
Difficulty: Medium
Tags: array, greedy, sort, stack
```

```

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 numberOfWeakCharacters(self, properties: List[List[int]]) -> int:
# TODO: Implement optimized solution
pass

```

Python Solution:

```

class Solution(object):
def numberOfWeakCharacters(self, properties):
"""
:type properties: List[List[int]]
:rtype: int
"""

```

JavaScript Solution:

```

/**
 * Problem: The Number of Weak Characters in the Game
 * Difficulty: Medium
 * Tags: array, greedy, sort, stack
 *
 * 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
 */

/**
 * @param {number[][]} properties
 * @return {number}
 */
var numberOfWeakCharacters = function(properties) {

};

```

TypeScript Solution:

```

/**
 * Problem: The Number of Weak Characters in the Game
 * Difficulty: Medium
 * Tags: array, greedy, sort, stack
 *
 * 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
 */

function numberOfWeakCharacters(properties: number[][]): number {
}

```

C# Solution:

```

/*
 * Problem: The Number of Weak Characters in the Game
 * Difficulty: Medium
 * Tags: array, greedy, sort, stack
 *
 * 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
 */

public class Solution {
    public int NumberOfWeakCharacters(int[][] properties) {
        return 0;
    }
}

```

C Solution:

```

/*
 * Problem: The Number of Weak Characters in the Game
 * Difficulty: Medium
 * Tags: array, greedy, sort, stack
 *
 * 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
 */

```

```
*/\n\nint numberOfWeakCharacters(int** properties, int propertiesSize, int*\npropertiesColSize) {\n\n}\n\n
```

Go Solution:

```
// Problem: The Number of Weak Characters in the Game\n// Difficulty: Medium\n// Tags: array, greedy, sort, stack\n//\n// Approach: Use two pointers or sliding window technique\n// Time Complexity: O(n) or O(n log n)\n// Space Complexity: O(1) to O(n) depending on approach\n\nfunc numberOfWeakCharacters(properties [][]int) int {\n\n}
```

Kotlin Solution:

```
class Solution {\n    fun numberOfWeakCharacters(properties: Array<IntArray>): Int {\n        \n    }\n}
```

Swift Solution:

```
class Solution {\n    func numberOfWeakCharacters(_ properties: [[Int]]) -> Int {\n        \n    }\n}
```

Rust Solution:

```
// Problem: The Number of Weak Characters in the Game\n// Difficulty: Medium
```

```

// Tags: array, greedy, sort, stack
//
// 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

impl Solution {
    pub fn number_of_weak_characters(properties: Vec<Vec<i32>>) -> i32 {
        }

    }
}

```

Ruby Solution:

```

# @param {Integer[][]} properties
# @return {Integer}
def number_of_weak_characters(properties)

end

```

PHP Solution:

```

class Solution {

    /**
     * @param Integer[][] $properties
     * @return Integer
     */
    function numberOfWeakCharacters($properties) {

    }
}

```

Dart Solution:

```

class Solution {
    int numberOfWeakCharacters(List<List<int>> properties) {
        }

    }
}

```

Scala Solution:

```
object Solution {  
    def numberOfWorkingCharacters(properties: Array[Array[Int]]): Int = {  
  
    }  
}
```

Elixir Solution:

```
defmodule Solution do  
  @spec number_of_weak_characters(properties :: [[integer]]) :: integer  
  def number_of_weak_characters(properties) do  
  
  end  
end
```

Erlang Solution:

```
-spec number_of_weak_characters(Properties :: [[integer()]]) -> integer().  
number_of_weak_characters(Properties) ->  
.
```

Racket Solution:

```
(define/contract (number-of-weak-characters properties)  
  (-> (listof (listof exact-integer?)) exact-integer?)  
)
```