

Problem 2660: Determine the Winner of a Bowling Game

Problem Information

Difficulty: Easy

Acceptance Rate: 36.68%

Paid Only: No

Tags: Array, Simulation

Problem Description

You are given two **0-indexed** integer arrays `player1` and `player2`, representing the number of pins that player 1 and player 2 hit in a bowling game, respectively.

The bowling game consists of `n` turns, and the number of pins in each turn is exactly 10.

Assume a player hits `xi` pins in the ith turn. The value of the ith turn for the player is:

* `2xi` if the player hits 10 pins **in either (i - 1) th or (i - 2)th turn**. * Otherwise, it is `xi`.

The **score** of the player is the sum of the values of their `n` turns.

Return

* 1 if the score of player 1 is more than the score of player 2, * 2 if the score of player 2 is more than the score of player 1, and * 0 in case of a draw.

Example 1:

Input: player1 = [5,10,3,2], player2 = [6,5,7,3]

Output: 1

Explanation:

The score of player 1 is $5 + 10 + 2^3 + 2^2 = 25$.

The score of player 2 is $6 + 5 + 7 + 3 = 21$.

Example 2:

Input: player1 = [3,5,7,6], player2 = [8,10,10,2]

Output: 2

Explanation:

The score of player 1 is $3 + 5 + 7 + 6 = 21$.

The score of player 2 is $8 + 10 + 2^{10} + 2^2 = 42$.

Example 3:

Input: player1 = [2,3], player2 = [4,1]

Output: 0

Explanation:

The score of player1 is $2 + 3 = 5$.

The score of player2 is $4 + 1 = 5$.

Example 4:

Input: player1 = [1,1,1,10,10,10,10], player2 = [10,10,10,10,1,1,1]

Output: 2

Explanation:

The score of player1 is $1 + 1 + 1 + 10 + 2^{10} + 2^{10} + 2^{10} = 73$.

The score of player2 is $10 + 2^{10} + 2^{10} + 2^{10} + 2^1 + 2^1 + 1 = 75$.

****Constraints:****

* `n == player1.length == player2.length` * `1 <= n <= 1000` * `0 <= player1[i], player2[i] <= 10`

Code Snippets

C++:

```
class Solution {  
public:  
    int isWinner(vector<int>& player1, vector<int>& player2) {  
  
    }  
};
```

Java:

```
class Solution {  
public int isWinner(int[] player1, int[] player2) {  
  
}  
}
```

Python3:

```
class Solution:  
    def isWinner(self, player1: List[int], player2: List[int]) -> int:
```