Problem 1664: Ways to Make a Fair Array

Problem Information

Difficulty: Medium
Acceptance Rate: 65.13%
Paid Only: No
Tags: Array, Prefix Sum

Problem Description

You are given an integer array `nums`. You can choose **exactly one** index (**0-indexed**) and remove the element. Notice that the index of the elements may change after the removal.

For example, if `nums = [6,1,7,4,1]`:

* Choosing to remove index `1` results in `nums = [6,7,4,1]`. * Choosing to remove index `2` results in `nums = [6,1,4,1]`. * Choosing to remove index `4` results in `nums = [6,1,7,4]`.

An array is **fair** if the sum of the odd-indexed values equals the sum of the even-indexed values.

Return the _**number** of indices that you could choose such that after the removal, _`nums` ___is**fair**. _

Example 1:

Input: nums = [2,1,6,4] **Output:** 1 **Explanation:** Remove index 0: [1,6,4] -> Even sum: 1 + 4 = 5. Odd sum: 6. Not fair. Remove index 1: [2,6,4] -> Even sum: 2 + 4 = 6. Odd sum: 6. Fair. Remove index 2: [2,1,4] -> Even sum: 2 + 4 = 6. Odd sum: 1. Not fair. Remove index 3: [2,1,6] -> Even sum: 2 + 6 = 8. Odd sum: 1. Not fair. There is 1 index that you can remove to make nums fair.

Example 2:

Input: nums = [1,1,1] **Output:** 3 **Explanation:** You can remove any index and the remaining array is fair.

Example 3:

Input: nums = [1,2,3] **Output:** 0 **Explanation:** You cannot make a fair array after removing any index.

Constraints:

* `1 <= nums.length <= 105` * `1 <= nums[i] <= 104`

Code Snippets

C++:

```
class Solution {
public:
int waysToMakeFair(vector<int>& nums) {

}
};
```

Java:

```
class Solution {
public int waysToMakeFair(int[] nums) {

}
}
```

Python3:

```
class Solution:
def waysToMakeFair(self, nums: List[int]) -> int:
```