Problem 724: Find Pivot Index

Problem Information

Difficulty: Easy
Acceptance Rate: 61.48%
Paid Only: No
Tags: Array, Prefix Sum

Problem Description

Given an array of integers `nums`, calculate the **pivot index** of this array.

The **pivot index** is the index where the sum of all the numbers **strictly** to the left of the index is equal to the sum of all the numbers **strictly** to the index's right.

If the index is on the left edge of the array, then the left sum is `0` because there are no elements to the left. This also applies to the right edge of the array.

Return _the**leftmost pivot index**_. If no such index exists, return `-1`.

Example 1:

Input: nums = [1,7,3,6,5,6] **Output:** 3 **Explanation:** The pivot index is 3. Left sum = nums[0] + nums[1] + nums[2] = 1 + 7 + 3 = 11 Right sum = nums[4] + nums[5] = 5 + 6 = 11

Example 2:

Input: nums = [1,2,3] **Output:** -1 **Explanation:** There is no index that satisfies the conditions in the problem statement.

Example 3:

Input: nums = [2,1,-1] **Output:** 0 **Explanation:** The pivot index is 0. Left sum = 0 (no elements to the left of index 0) Right sum = nums[1] + nums[2] = 1 + -1 = 0

Constraints:

* `1 <= nums.length <= 104` * `-1000 <= nums[i] <= 1000`

Note: This question is the same as 1991: <https://leetcode.com/problems/find-the-middle-index-in-array/>

Code Snippets

C++:

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

}
};
```

Java:

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

}
}
```

Python3:

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