Problem 2574: Left and Right Sum Differences

Problem Information

Difficulty: Easy
Acceptance Rate: 87.71%
Paid Only: No
Tags: Array, Prefix Sum

Problem Description

You are given a **0-indexed** integer array `nums` of size `n`.

Define two arrays `leftSum` and `rightSum` where:

* `leftSum[i]` is the sum of elements to the left of the index `i` in the array `nums`. If there is no such element, `leftSum[i] = 0`. * `rightSum[i]` is the sum of elements to the right of the index `i` in the array `nums`. If there is no such element, `rightSum[i] = 0`.

Return an integer array `answer` of size `n` where `answer[i] = |leftSum[i] - rightSum[i]|`.

Example 1:

Input: nums = [10,4,8,3] **Output:** [15,1,11,22] **Explanation:** The array leftSum is [0,10,14,22] and the array rightSum is [15,11,3,0]. The array answer is [|0 - 15|,|10 - 11|,|14 - 3|,|22 - 0|] = [15,1,11,22].

Example 2:

Input: nums = [1] **Output:** [0] **Explanation:** The array leftSum is [0] and the array rightSum is [0]. The array answer is [|0 - 0|] = [0].

Constraints:

* `1 <= nums.length <= 1000` * `1 <= nums[i] <= 105`

Code Snippets

C++:

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

}
};
```

Java:

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

}
}
```

Python3:

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