Problem 1785: Minimum Elements to Add to Form a Given Sum

Problem Information

Difficulty: Medium
Acceptance Rate: 44.67%
Paid Only: No
Tags: Array, Greedy

Problem Description

You are given an integer array `nums` and two integers `limit` and `goal`. The array `nums` has an interesting property that `abs(nums[i]) <= limit`.

Return _the minimum number of elements you need to add to make the sum of the array equal to_`goal`. The array must maintain its property that `abs(nums[i]) <= limit`.

Note that `abs(x)` equals `x` if `x >= 0`, and `-x` otherwise.

Example 1:

Input: nums = [1,-1,1], limit = 3, goal = -4 **Output:** 2 **Explanation:** You can add -2 and -3, then the sum of the array will be 1 - 1 + 1 - 2 - 3 = -4.

Example 2:

Input: nums = [1,-10,9,1], limit = 100, goal = 0 **Output:** 1

Constraints:

* `1 <= nums.length <= 105` * `1 <= limit <= 106` * `-limit <= nums[i] <= limit` * `-109 <= goal <= 109`

Code Snippets

C++:

```
class Solution {
public:
int minElements(vector<int>& nums, int limit, int goal) {

}
};
```

Java:

```
class Solution {
public int minElements(int[] nums, int limit, int goal) {

}
}
```

Python3:

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