Problem 2357: Make Array Zero by Subtracting Equal Amounts

Problem Information

Difficulty: Easy
Acceptance Rate: 0.00%
Paid Only: No

Problem Description

You are given a non-negative integer array

nums

. In one operation, you must:

Choose a positive integer

x

such that

x

is less than or equal to the

smallest non-zero

element in

nums

.

Subtract

x

from every

positive

element in

nums

.

Return

the

minimum

number of operations to make every element in

nums

equal to

0

.

Example 1:

Input:

nums = [1,5,0,3,5]

Output:

3

Explanation:

In the first operation, choose x = 1. Now, nums = [0,4,0,2,4]. In the second operation, choose x = 2. Now, nums = [0,2,0,0,2]. In the third operation, choose x = 2. Now, nums = [0,0,0,0,0].

Example 2:

Input:

nums = [0]

Output:

0

Explanation:

Each element in nums is already 0 so no operations are needed.

Constraints:

1 <= nums.length <= 100

0 <= nums[i] <= 100

Code Snippets

C++:

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

}
};
```

Java:

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

}
}
```

Python3:

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

Python:

```
class Solution(object):
def minimumOperations(self, nums):
"""
:type nums: List[int]
:rtype: int
"""
```

JavaScript:

```
/**
* @param {number[]} nums
* @return {number}
*/
var minimumOperations = function(nums) {

};
```

TypeScript:

```
function minimumOperations(nums: number[]): number {

};
```

C#:

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

}
}
```

C:

```
int minimumOperations(int* nums, int numsSize) {

}
```

Go:

```
func minimumOperations(nums []int) int {

}
```

Kotlin:

```
class Solution {
fun minimumOperations(nums: IntArray): Int {

}
}
```

Swift:

```
class Solution {
func minimumOperations(_ nums: [Int]) -> Int {

}
}
```

Rust:

```
impl Solution {
pub fn minimum_operations(nums: Vec<i32>) -> i32 {

}
}
```

Ruby:

```
# @param {Integer[]} nums
# @return {Integer}
def minimum_operations(nums)

end
```

PHP:

```
class Solution {

/**
* @param Integer[] $nums
* @return Integer
*/
function minimumOperations($nums) {

}
}
```

Dart:

```
class Solution {
int minimumOperations(List<int> nums) {

}
}
```

Scala:

```
object Solution {
def minimumOperations(nums: Array[Int]): Int = {

}
}
```

Elixir:

```
defmodule Solution do
@spec minimum_operations(nums :: [integer]) :: integer
def minimum_operations(nums) do

end
end
```

Erlang:

```
-spec minimum_operations(Nums :: [integer()]) -> integer().
minimum_operations(Nums) ->
.
```

Racket:

```
(define/contract (minimum-operations nums)
(-> (listof exact-integer?) exact-integer?)
)
```

Solutions

C++ Solution:

```
/*
* Problem: Make Array Zero by Subtracting Equal Amounts
* Difficulty: Easy
* Tags: array, greedy, hash, sort, queue, heap
*
* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(n) for hash map
*/

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

}
};
```

Java Solution:

```
/**
* Problem: Make Array Zero by Subtracting Equal Amounts
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*/

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

```
}
}
```

Python3 Solution:

```
"""
Problem: Make Array Zero by Subtracting Equal Amounts
Difficulty: Easy
Tags: array, greedy, hash, sort, queue, heap

Approach: Use two pointers or sliding window technique
Time Complexity: O(n) or O(n log n)
Space Complexity: O(n) for hash map
"""

class Solution:
def minimumOperations(self, nums: List[int]) -> int:
# TODO: Implement optimized solution
pass
```

Python Solution:

```
class Solution(object):
def minimumOperations(self, nums):
"""
:type nums: List[int]
:rtype: int
"""
```

JavaScript Solution:

```
/**
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TypeScript Solution:

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function minimumOperations(nums: number[]): number {

};
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C# Solution:

```
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*/

public class Solution {
public int MinimumOperations(int[] nums) {

}
```

```
}
```

C Solution:

```
/*
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* Difficulty: Easy
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int minimumOperations(int* nums, int numsSize) {

}
```

Go Solution:

```
// Problem: Make Array Zero by Subtracting Equal Amounts
// Difficulty: Easy
// Tags: array, greedy, hash, sort, queue, heap
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func minimumOperations(nums []int) int {

}
```

Kotlin Solution:

```
class Solution {
fun minimumOperations(nums: IntArray): Int {

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}
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Swift Solution:

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class Solution {
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Rust Solution:

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impl Solution {
pub fn minimum_operations(nums: Vec<i32>) -> i32 {

}
}
```

Ruby Solution:

```
# @param {Integer[]} nums
# @return {Integer}
def minimum_operations(nums)

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PHP Solution:

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class Solution {

/**
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