Problem 3674: Minimum Operations to Equalize Array

Problem Information

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

Problem Description

You are given an integer array

nums

of length

n

.

In one operation, choose any subarray

nums[l...r]

(

0 <= l <= r < n

) and

replace

each element in that subarray with the

bitwise AND

of all elements.

Return the

minimum

number of operations required to make all elements of

nums

equal.

A

subarray

is a contiguous

non-empty

sequence of elements within an array.

Example 1:

Input:

nums = [1,2]

Output:

1

Explanation:

Choose

nums[0...1]

:

(1 AND 2) = 0

, so the array becomes

[0, 0]

and all elements are equal in 1 operation.

Example 2:

Input:

nums = [5,5,5]

Output:

0

Explanation:

nums

is

[5, 5, 5]

which already has all elements equal, so 0 operations are required.

Constraints:

1 <= n == nums.length <= 100

1 <= nums[i] <= 10

5

Code Snippets

C++:

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

}
};
```

Java:

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

}
}
```

Python3:

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

Python:

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

JavaScript:

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

};
```

```
}
```

TypeScript:

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

};
```

C#:

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

}
}
```

C:

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

}
```

Go:

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

}
```

Kotlin:

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

}
}
```

Swift:

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

}
}
```

Rust:

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

}
}
```

Ruby:

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

end
```

PHP:

```
class Solution {

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

}
}
```

Dart:

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

}
}
```

Scala:

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

}
}
```

Elixir:

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

end
end
```

Erlang:

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

Racket:

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

Solutions

C++ Solution:

```
/*
* Problem: Minimum Operations to Equalize Array
* Difficulty: Easy
* Tags: array
*
* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(1) to O(n) depending on approach
*/

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

}
};
```

Java Solution:

```
/**
* Problem: Minimum Operations to Equalize Array
* Difficulty: Easy
* Tags: array
*
* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
* Space Complexity: O(1) to O(n) depending on approach
*/

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

}
}
```

Python3 Solution:

```
"""
Problem: Minimum Operations to Equalize Array
Difficulty: Easy
Tags: array

Approach: Use two pointers or sliding window technique
Time Complexity: O(n) or O(n log n)
Space Complexity: O(1) to O(n) depending on approach
"""

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

Python Solution:

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

```

"""
```

JavaScript Solution:

```
/**
* Problem: Minimum Operations to Equalize Array
* Difficulty: Easy
* Tags: array
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* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
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*/

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

};
```

TypeScript Solution:

```
/**
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* Difficulty: Easy
* Tags: array
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* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
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*/

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

};
```

C# Solution:

```
/*
* Problem: Minimum Operations to Equalize Array
* Difficulty: Easy
* Tags: array
*
* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
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*/

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

}
}
```

C Solution:

```
/*
* Problem: Minimum Operations to Equalize Array
* Difficulty: Easy
* Tags: array
*
* Approach: Use two pointers or sliding window technique
* Time Complexity: O(n) or O(n log n)
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*/

int minOperations(int* nums, int numsSize) {

}
```

Go Solution:

```
// Problem: Minimum Operations to Equalize Array
// Difficulty: Easy
// Tags: array
//
// Approach: Use two pointers or sliding window technique
// Time Complexity: O(n) or O(n log n)
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```

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

}
```

Kotlin Solution:

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

}
}
```

Swift Solution:

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

}
}
```

Rust Solution:

```
// Problem: Minimum Operations to Equalize Array
// Difficulty: Easy
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impl Solution {
pub fn min_operations(nums: Vec<i32>) -> i32 {

}
}
```

Ruby Solution:

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

```
end
```

PHP Solution:

```
class Solution {

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

}
}
```

Dart Solution:

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Scala Solution:

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object Solution {
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