Problem 2422: Merge Operations to Turn Array Into a Palindrome

Problem Information

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

Problem Description

You are given an array

nums

consisting of

positive

integers.

You can perform the following operation on the array

any

number of times:

Choose any two

adjacent

elements and

replace

them with their

sum

.

For example, if

nums = [1,

2,3

,1]

, you can apply one operation to make it

[1,5,1]

.

Return

the

minimum

number of operations needed to turn the array into a

palindrome

.

Example 1:

Input:

nums = [4,3,2,1,2,3,1]

Output:

2

Explanation:

We can turn the array into a palindrome in 2 operations as follows: - Apply the operation on the fourth and fifth element of the array, nums becomes equal to [4,3,2,

3

,3,1]. - Apply the operation on the fifth and sixth element of the array, nums becomes equal to [4,3,2,3,

4

]. The array [4,3,2,3,4] is a palindrome. It can be shown that 2 is the minimum number of operations needed.

Example 2:

Input:

nums = [1,2,3,4]

Output:

3

Explanation:

We do the operation 3 times in any position, we obtain the array [10] at the end which is a palindrome.

Constraints:

1 <= nums.length <= 10

5

1 <= nums[i] <= 10

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: Merge Operations to Turn Array Into a Palindrome
* Difficulty: Medium
* Tags: array, string, greedy
*
* 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 minimumOperations(vector<int>& nums) {

}
};
```

Java Solution:

```
/**
* Problem: Merge Operations to Turn Array Into a Palindrome
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* Tags: array, string, greedy
*
* 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 minimumOperations(int[] nums) {

}
}
```

Python3 Solution:

```
"""
Problem: Merge Operations to Turn Array Into a Palindrome
Difficulty: Medium
Tags: array, string, greedy

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 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:

```
/**
* Problem: Merge Operations to Turn Array Into a Palindrome
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/**
* @param {number[]} nums
* @return {number}
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var minimumOperations = function(nums) {

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```

TypeScript Solution:

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

```
};
```

C# Solution:

```
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* Time Complexity: O(n) or O(n log n)
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*/

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

}
}
```

C Solution:

```
/*
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* Approach: Use two pointers or sliding window technique
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*/

int minimumOperations(int* nums, int numsSize) {

}
```

Go Solution:

```
// Problem: Merge Operations to Turn Array Into a Palindrome
// Difficulty: Medium
```

```
// Tags: array, string, greedy
//
// Approach: Use two pointers or sliding window technique
// Time Complexity: O(n) or O(n log n)
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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 {
func minimumOperations(_ nums: [Int]) -> Int {

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Rust Solution:

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

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}
```

Ruby Solution:

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

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PHP Solution:

```
class Solution {

/**
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