2422. Merge Operations to Turn Array Into a Palindrome Premium

Medium | Topics | Companies | Hint

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] <= 10^6`

Seen this question in a real interview before? 1/5

Yes No

Accepted 14.5K | Submissions 21K | Acceptance Rate 69.2%

Topics

Array Two Pointers Greedy

Companies

0 - 3 months

TikTok 3

0 - 6 months

Amazon 2 Accolite 2 Adobe 2

6 months ago

Oracle 2

Hint 1

Can you find how many operations are needed to make the first element of the array equal to the last element?

Hint 2

Notice that you can use the same idea of the previous hint to make the second element equal to the second last one.

Hint 3

Use the same idea until all elements of the array are used.

Discussion (9)