

5977. Minimum Swaps to Group All 1's Together II

My Submissions (/contest/weekly-contest-275/problems/minimum-swaps-to-group-all-1s-together-ii/submissions/)

Back to Contest (/contest/weekly-contest-275/)

A **swap** is defined as taking two **distinct** positions in an array and swapping the values in them.

A **circular** array is defined as an array where we consider the **first** element and the **last** element to be **adjacent**.

Given a **binary circular** array `nums`, return the *minimum number of swaps required to group all 1's present in the array together at **any** location*.

User Accepted:	772
User Tried:	1312
Total Accepted:	775
Total Submissions:	1826
Difficulty:	Medium

Example 1:

Input: `nums = [0,1,0,1,1,0,0]`

Output: 1

Explanation: Here are a few of the ways to group all the 1's together:

`[0,0,1,1,1,0,0]` using 1 swap.

`[0,1,1,1,0,0,0]` using 1 swap.

`[1,1,0,0,0,0,1]` using 2 swaps (using the circular property of the array).

There is no way to group all 1's together with 0 swaps.

Thus, the minimum number of swaps required is 1.

Example 2:

Input: `nums = [0,1,1,1,0,0,1,1,0]`

Output: 2

Explanation: Here are a few of the ways to group all the 1's together:

`[1,1,1,0,0,0,0,1,1]` using 2 swaps (using the circular property of the array).

`[1,1,1,1,1,0,0,0,0]` using 2 swaps.

There is no way to group all 1's together with 0 or 1 swaps.

Thus, the minimum number of swaps required is 2.

Example 3:

Input: `nums = [1,1,0,0,1]`

Output: 0

Explanation: All the 1's are already grouped together due to the circular property of the array.

Thus, the minimum number of swaps required is 0.

Constraints:

- 1 <= `nums.length` <= 10⁵
- `nums[i]` is either 0 or 1.

Java

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```
1 class Solution {
2     public int minSwaps(int[] nums) {
3
4     }
5 }
```