

2460. Apply Operations to an Array

Description

You are given a **0-indexed** array `nums` of size `n` consisting of **non-negative** integers.

You need to apply `n - 1` operations to this array where, in the `ith` operation (**0-indexed**), you will apply the following on the `ith` element of `nums` :

- If `nums[i] == nums[i + 1]` , then multiply `nums[i]` by `2` and set `nums[i + 1]` to `0` . Otherwise, you skip this operation.

After performing **all** the operations, **shift** all the `0` 's to the **end** of the array.

- For example, the array `[1,0,2,0,0,1]` after shifting all its `0` 's to the end, is `[1,2,1,0,0,0]` .

Return *the resulting array* .

Note that the operations are applied **sequentially** , not all at once.

Example 1:

Input: `nums = [1,2,2,1,1,0]`

Output: `[1,4,2,0,0,0]`

Explanation: We do the following operations:

- `i = 0`: `nums[0]` and `nums[1]` are not equal, so we skip this operation.
 - `i = 1`: `nums[1]` and `nums[2]` are equal, we multiply `nums[1]` by 2 and change `nums[2]` to 0. The array becomes `[1, 4 , 0 ,1,1,0]`.
 - `i = 2`: `nums[2]` and `nums[3]` are not equal, so we skip this operation.
 - `i = 3`: `nums[3]` and `nums[4]` are equal, we multiply `nums[3]` by 2 and change `nums[4]` to 0. The array becomes `[1,4,0, 2 , 0 ,0]`.
 - `i = 4`: `nums[4]` and `nums[5]` are equal, we multiply `nums[4]` by 2 and change `nums[5]` to 0. The array becomes `[1,4,0,2, 0 , 0]`.
- After that, we shift the 0's to the end, which gives the array `[1,4,2,0,0,0]`.

Example 2:

Input: `nums = [0,1]`

Output: `[1,0]`

Explanation: No operation can be applied, we just shift the 0 to the end.

Constraints:

- `2 <= nums.length <= 2000`
- `0 <= nums[i] <= 1000`

