6229. Apply Operations to an Array

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User Accepted:	0
User Tried:	0
Total Accepted:	0
Total Submissions:	0
Difficulty:	Easy

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 i^{th} operation (**0-indexed**), you will apply the following on the i^{th} 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`

JavaScript

```
const applyOperations = (a) => {
    let n = a.length, zero = 0;
    for (let i = 0; i < n - 1; i++) {
        if (a[i] == a[i + 1]) {
            a[i] *= 2;
            a[i + 1] = 0;
        }
    }
    let res = [];
    for (const x of a) x == 0 ? zero++ : res.push(x);
    return [...res, ...Array(zero).fill(0)];
};
```

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