6217. Minimum Number of Operations to Make Arrays Similar

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User Accepted:	0
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Total Accepted:	0
Total Submissions:	0
Difficulty:	Hard

You are given two positive integer arrays `nums` and `target`, of the same length.

In one operation, you can choose any two **distinct** indices `i` and `j` where `0 <= i, j < nums.length` and:

- set `nums[i] = nums[i] + 2` and
- set `nums[j] = nums[j] - 2`.

Two arrays are considered to be **similar** if the frequency of each element is the same.

Return *the minimum number of operations required to make* `nums` *similar to* `target`. The test cases are generated such that `nums` can always be similar to `target`.

Example 1:

```
Input: nums = [8,12,6], target = [2,14,10]
Output: 2
Explanation: It is possible to make nums similar to target in two operations:
- Choose i = 0 and j = 2, nums = [10,12,4].
- Choose i = 1 and j = 2, nums = [10,14,2].
It can be shown that 2 is the minimum number of operations needed.
```

Example 2:

```
Input: nums = [1,2,5], target = [4,1,3]
Output: 1
Explanation: We can make nums similar to target in one operation:
- Choose i = 1 and j = 2, nums = [1,4,3].
```

Example 3:

```
Input: nums = [1,1,1,1,1], target = [1,1,1,1,1]
Output: 0
Explanation: The array nums is already similiar to target.
```

Constraints:

- `n == nums.length == target.length`
- `1 <= n <= 10^5`
- `1 <= nums[i], target[i] <= 10^6`
- It is possible to make `nums` similar to `target`.

JavaScript

```javascript
const sm = (a) => a.reduce(((x, y) => x + y), 0);

const makeSimilar = (a, b) => {
    let n = a.length, max = Number.MIN_SAFE_INTEGER;
    for (let i = 0; i < n; i++) max = Math.max(max, a[i], b[i]);
    let f = Array(max + 1).fill(0);
    for (let i = 0; i < n; i++) {
        f[a[i]]++;
        f[b[i]]--;
    }
    for (let x = 2; x <= max; x++) f[x] += f[x - 2];
    return sm(f.map(x => Math.abs(x))) / 2;
};
```

Custom Testcase | Use Example Testcases

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