

6929. Maximum Beauty of an Array After Applying Operation

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You are given a **0-indexed** array `nums` and a **non-negative** integer `k`.

In one operation, you can do the following:

- Choose an index `i` that **hasn't been chosen before** from the range `[0, nums.length - 1]`.
- Replace `nums[i]` with any integer from the range `[nums[i] - k, nums[i] + k]`.

The **beauty** of the array is the length of the longest subsequence consisting of equal elements.

Return the **maximum** possible beauty of the array `nums` after applying the operation any number of times.

Note that you can apply the operation to each index **only once**.

A **subsequence** of an array is a new array generated from the original array by deleting some elements (possibly none) without changing the order of the remaining elements.

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

Example 1:

Input: `nums = [4,6,1,2]`, `k = 2`
Output: `3`
Explanation: In this example, we apply the following operations:
- Choose index 1, replace it with 4 (from range `[4,8]`), `nums = [4,4,1,2]`.
- Choose index 3, replace it with 4 (from range `[0,4]`), `nums = [4,4,1,4]`.
After the applied operations, the beauty of the array `nums` is 3 (subsequence consisting of indices 0, 1, and 3).
It can be proven that 3 is the maximum possible length we can achieve.

Example 2:

Input: `nums = [1,1,1,1]`, `k = 10`
Output: `4`
Explanation: In this example we don't have to apply any operations.
The beauty of the array `nums` is 4 (whole array).

Constraints:

- `1 <= nums.length <= 105`
- `0 <= nums[i], k <= 105`

JavaScript

📄 ↺ ⚙

```
1 const maximumBeauty = (a, k) => diffArray(a, k)
2
3 const diffArray = (a, k) => {
4   let offset = k, max = Math.max(...a), d = Array(max + k + offset + 2).fill(0), cur = 0, res = 0;
5   a.map(x => {
6     d[x - k + offset]++;
7     d[x + k + 1 + offset]--;
8   })
9   for (const e of d) {
10    cur += e;
11    res = Math.max(res, cur);
12  }
13  return res;
14 };
```

☐ Custom Testcase

Use Example Testcases

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