

ref=nb\_npl)





# 5777. Reduction Operations to Make the Array Elements Equal

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Given an integer array nums, your goal is to make all elements in nums equal. To complete one operation, follow these steps:

- 1. Find the largest value in nums. Let its index be i (0-indexed) and its value be largest. If there are multiple elements with the largest value, pick the smallest  $\,i\,$ .
- 2. Find the next largest value in nums strictly smaller than largest. Let its value be nextLargest.
- 3. Reduce nums[i] to nextLargest.

Return the number of operations to make all elements in nums equal.

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

### Example 1:

```
Input: nums = [5,1,3]
Output: 3
Explanation: It takes 3 operations to make all elements in nums equal:
1. largest = 5 at index 0. nextLargest = 3. Reduce nums[0] to 3. nums = [3,1,3].
2. largest = 3 at index 0. nextLargest = 1. Reduce nums[0] to 1. nums = [1,1,3].
3. largest = 3 at index 2. nextLargest = 1. Reduce nums[2] to 1. nums = [1,1,1].
```

#### Example 2:

```
Input: nums = [1,1,1]
Explanation: All elements in nums are already equal.
```

## Example 3:

```
Input: nums = [1,1,2,2,3]
Output: 4
Explanation: It takes 4 operations to make all elements in nums equal:
1. largest = 3 at index 4. nextLargest = 2. Reduce nums[4] to 2. nums = [1,1,2,2,\underline{2}].
2. largest = 2 at index 2. nextLargest = 1. Reduce nums[2] to 1. nums = [1,1,\frac{1}{2},2,2].
3. largest = 2 at index 3. nextLargest = 1. Reduce nums[3] to 1. nums = [1,1,1,\frac{1}{2},2].
4. largest = 2 at index 4. nextLargest = 1. Reduce nums[4] to 1. nums = [1,1,1,1,\frac{1}{2}].
```

### Constraints:

```
• 1 <= nums.length <= 5 * 10^4
```

```
• 1 <= nums[i] <= 5 * 10^4
```

```
Java
1 v class Solution {
2 •
        public int reductionOperations(int[] nums) {
3
4
        }
5
    }
```