

## 3634. Minimum Removals to Balance Array

Solved ●

Medium  Topics  Hint

You are given an integer array `nums` and an integer `k`.

An array is considered **balanced** if the value of its **maximum** element is **at most** `k` times the **minimum** element.

You may remove **any** number of elements from `nums` without making it **empty**.

Return the **minimum** number of elements to remove so that the remaining array is balanced.

**Note:** An array of size 1 is considered balanced as its maximum and minimum are equal, and the condition always holds true.

### Example 1:

**Input:** `nums = [2,1,5]`, `k = 2`

**Output:** 1

**Explanation:**

- Remove `nums[2] = 5` to get `nums = [2, 1]`.
- Now `max = 2`, `min = 1` and `max <= min * k` as `2 <= 1 * 2`. Thus, the answer is 1.

### Example 2:

**Input:** `nums = [1,6,2,9]`, `k = 3`

**Output:** 2

**Explanation:**

- Remove `nums[0] = 1` and `nums[3] = 9` to get `nums = [6, 2]`.
- Now `max = 6`, `min = 2` and `max <= min * k` as `6 <= 2 * 3`. Thus, the answer is 2.

### Example 3:

**Input:** `nums = [4,6]`, `k = 2`

**Output:** 0

**Explanation:**

- Since `nums` is already balanced as `6 <= 4 * 2`, no elements need to be removed.

### Constraints:

- `1 <= nums.length <= 105`
- `1 <= nums[i] <= 109`
- `1 <= k <= 105`

Seen this question in a real interview before? 1/5

Yes No

Accepted 26.725 / 70.8K | Acceptance Rate 37.7%

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Topics

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Hint 1

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Hint 2

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Discussion (17)

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