2530. Maximal Score After Applying K Operations

Solved ●

Medium Topics Companies Hint

You are given a **0-indexed** integer array `nums` and an integer `k`. You have a **starting score** of `0`.

In one **operation**:

1. choose an index `i` such that `0 <= i < nums.length`,
2. increase your **score** by `nums[i]`, and
3. replace `nums[i]` with `ceil(nums[i] / 3)`.

Return *the maximum possible **score** you can attain after applying **exactly** `k` operations*.

The ceiling function `ceil(val)` is the least integer greater than or equal to `val`.

Example 1:

> **Input:** nums = [10,10,10,10,10], k = 5
> **Output:** 50
> **Explanation:** Apply the operation to each array element exactly once. The final score is 10 + 10 + 10 + 10 + 10 = 50.

Example 2:

> **Input:** nums = [1,10,3,3,3], k = 3
> **Output:** 17
> **Explanation:** You can do the following operations:
> Operation 1: Select i = 1, so nums becomes [1,**4**,3,3,3]. Your score increases by 10.
> Operation 2: Select i = 1, so nums becomes [1,**2**,3,3,3]. Your score increases by 4.
> Operation 3: Select i = 2, so nums becomes [1,1,**1**,3,3]. Your score increases by 3.
> The final score is 10 + 4 + 3 = 17.

Constraints:

- `1 <= nums.length, k <= 10^5`
- `1 <= nums[i] <= 10^9`

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Yes No

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Hint 1

Hint 2

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