Problem 3264: Final Array State After K Multiplication Operations I

Problem Information

Difficulty: Easy
Acceptance Rate: 86.96%
Paid Only: No
Tags: Array, Math, Heap (Priority Queue), Simulation

Problem Description

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

You need to perform `k` operations on `nums`. In each operation:

* Find the **minimum** value `x` in `nums`. If there are multiple occurrences of the minimum value, select the one that appears **first**. * Replace the selected minimum value `x` with `x * multiplier`.

Return an integer array denoting the _final state_ of `nums` after performing all `k` operations.

Example 1:

Input: nums = [2,1,3,5,6], k = 5, multiplier = 2

Output: [8,4,6,5,6]

Explanation:

Operation | Result ---|--- After operation 1 | [2, 2, 3, 5, 6] After operation 2 | [4, 2, 3, 5, 6] After operation 3 | [4, 4, 3, 5, 6] After operation 4 | [4, 4, 6, 5, 6] After operation 5 | [8, 4, 6, 5, 6] **Example 2:**

Input: nums = [1,2], k = 3, multiplier = 4

Output: [16,8]

Explanation:

Operation | Result ---|--- After operation 1 | [4, 2] After operation 2 | [4, 8] After operation 3 | [16, 8]

Constraints:

* `1 <= nums.length <= 100` * `1 <= nums[i] <= 100` * `1 <= k <= 10` * `1 <= multiplier <= 5`

Code Snippets

C++:

```
class Solution {
public:
vector<int> getFinalState(vector<int>& nums, int k, int multiplier) {

}
};
```

Java:

```
class Solution {
public int[] getFinalState(int[] nums, int k, int multiplier) {

}
}
```

Python3:

```
class Solution:
def getFinalState(self, nums: List[int], k: int, multiplier: int) ->
List[int]:
```