Problem 1005: Maximize Sum Of Array After K Negations

Problem Information

Difficulty: Easy
Acceptance Rate: 53.12%
Paid Only: No
Tags: Array, Greedy, Sorting

Problem Description

Given an integer array `nums` and an integer `k`, modify the array in the following way:

* choose an index `i` and replace `nums[i]` with `-nums[i]`.

You should apply this process exactly `k` times. You may choose the same index `i` multiple times.

Return _the largest possible sum of the array after modifying it in this way_.

Example 1:

Input: nums = [4,2,3], k = 1 **Output:** 5 **Explanation:** Choose index 1 and nums becomes [4,-2,3].

Example 2:

Input: nums = [3,-1,0,2], k = 3 **Output:** 6 **Explanation:** Choose indices (1, 2, 2) and nums becomes [3,1,0,2].

Example 3:

Input: nums = [2,-3,-1,5,-4], k = 2 **Output:** 13 **Explanation:** Choose indices (1, 4) and nums becomes [2,3,-1,5,4].

Constraints:

* `1 <= nums.length <= 104` * `-100 <= nums[i] <= 100` * `1 <= k <= 104`

Code Snippets

C++:

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

}
};
```

Java:

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

}
}
```

Python3:

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