Problem 414: Third Maximum Number

Problem Information

Difficulty: Easy
Acceptance Rate: 38.22%
Paid Only: No
Tags: Array, Sorting

Problem Description

Given an integer array `nums`, return _the**third distinct maximum** number in this array. If the third maximum does not exist, return the **maximum** number_.

Example 1:

Input: nums = [3,2,1] **Output:** 1 **Explanation:** The first distinct maximum is 3. The second distinct maximum is 2. The third distinct maximum is 1.

Example 2:

Input: nums = [1,2] **Output:** 2 **Explanation:** The first distinct maximum is 2. The second distinct maximum is 1. The third distinct maximum does not exist, so the maximum (2) is returned instead.

Example 3:

Input: nums = [2,2,3,1] **Output:** 1 **Explanation:** The first distinct maximum is 3. The second distinct maximum is 2 (both 2's are counted together since they have the same value). The third distinct maximum is 1.

Constraints:

* `1 <= nums.length <= 104` * `-231 <= nums[i] <= 231 - 1`

Follow up: Can you find an `O(n)` solution?

Code Snippets

C++:

```
class Solution {
public:
int thirdMax(vector<int>& nums) {

}
};
```

Java:

```
class Solution {
public int thirdMax(int[] nums) {

}
}
```

Python3:

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