414. Third Maximum Number

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 <= 10^4`
- `-2^31 <= nums[i] <= 2^31 - 1`

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