414. Third Maximum Number

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?