

# Majority Element (>N/2 times)

*Given an array nums of size n, return the majority element.*

*The majority element is the element that appears more than  $\lfloor n / 2 \rfloor$  times. You may assume that the majority element always exists in the array.*

**Example 1:**

**Input:** *nums = [3,2,3]*

**Output:** 3

**Example 2:**

**Input:** *nums = [2,2,1,1,1,2,2]*

**Output:** 2

**Constraints:**

- $n == \text{nums.length}$
- $1 \leq n \leq 5 * 10^4$
- $-10^9 \leq \text{nums}[i] \leq 10^9$

**Follow-up:** *Could you solve the problem in linear time and in  $O(1)$  space?*