RAJALAKSHMI ENGINEERING COLLEGE

Started on	Friday, 3 October 2025, 1:41 PM
State	Finished
Completed on	Friday, 3 October 2025, 1:55 PM
Time taken	14 mins 40 secs
Marks	1.00/1.00
Grade	**10.00** out of 10.00 (**100**%)

Question 1 | Correct Mark 1.00 out of 1.00

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

The majority element is the element that appears more than `⌊n / 2⌋` 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 == nums.length`
- `1 <= n <= 5 * 10^4`
- `-2^31 <= nums[i] <= 2^31 - 1`

For example:

Input	Result
3 3 2 3	3
7 2 2 1 1 1 2 2	2

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>

int majorityElement(int* nums, int numsSize) {
    int count = 0;
    int candidate = 0;

    for (int i = 0; i < numsSize; i++) {
        if (count == 0) {
            candidate = nums[i];
        }
        count += (nums[i] == candidate) ? 1 : -1;
    }

    return candidate;
}

int main() {
    int n;
    scanf("%d", &n);

    int nums[n];
    for (int i = 0; i < n; i++) {
        scanf("%d", &nums[i]);
    }

    int result = majorityElement(nums, n);
```

```
27      printf("%d\n", result);
28
29      return 0;
30  }
31
```

	Input	Expected	Got	
✔	3 3 2 3	3	3	✔

Passed all tests! ✔

Correct

Marks for this submission: 1.00/1.00.

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