**Single Number**

Given a **non-empty** array of integers nums, every element appears *twice* except for one. Find that single one.

You must implement a solution with a linear runtime complexity and use only constant extra space.

**Example 1:**

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

**Output:** 1

**Example 2:**

**Input:** nums = [4,1,2,1,2]

**Output:** 4

**Example 3:**

**Input:** nums = [1]

**Output:** 1

Solution:

class Solution {

    public int singleNumber(int[] nums) {

        int result=0;

        for(int num : nums){

            result^=num;

        }

        return result;

    }

}