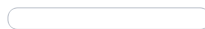




All Domains &gt; Algorithms &gt; Bit Manipulation &gt; Sansa and XOR

Badge Progress



Points: 2300.44 Rank: 1301

# Sansa and XOR



by amititkgp

Problem

Submissions

Leaderboard

Discussions

Editorial

Sansa has an array. She wants to find the value obtained by XOR-ing the contiguous subarrays, followed by XOR-ing the values thus obtained. Can you help her in this task?

**Note :**  $[5, 7, 5]$  is contiguous subarray of  $[4, 5, 7, 5]$  while  $[4, 7, 5]$  is not.

## Input Format

First line contains an integer  $T$ , number of the test cases.

The first line of each test case contains an integer  $N$ , number of elements in the array.

The second line of each test case contains  $N$  integers that are elements of the array.

## Output Format

Print the answer corresponding to each test case in a separate line.

## Constraints

$$1 \leq T \leq 5$$

$$2 \leq N \leq 10^5$$

$$1 \leq \text{numbers in array} \leq 10^8$$

## Sample Input

```
2
3
1 2 3
4
4 5 7 5
```

## Sample Output

```
2
0
```

## Explanation

Test case #00:

$$1 \oplus 2 \oplus 3 \oplus (1 \oplus 2) \oplus (2 \oplus 3) \oplus (1 \oplus 2 \oplus 3) = 2$$

Test case #01:



$$4 \oplus 5 \oplus 7 \oplus 5 \oplus (4 \oplus 5) \oplus (5 \oplus 7) \oplus (7 \oplus 5) \oplus (4 \oplus 5 \oplus 7) \oplus (5 \oplus 7 \oplus 5) \oplus (4 \oplus 5 \oplus 7 \oplus 5) = 0$$




Submissions: 4915

Max Score: 30

Difficulty: Moderate

[More](#)

Current Buffer (saved locally, editable)  

Java 8   

```
1 import java.io.*;
2 import java.util.*;
3
4 public class Solution {
5
6     public static void main(String[] args) {
7         /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class should be named
8         Solution. */
9     }
10 }
```

Line: 1 Col: 1

 [Upload Code as File](#)☐ Test against custom input

Run Code

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