Badge Progress (Details)

Points: 2138.04 Rank: 4997

Dashboard > Algorithms > Bit Manipulation > Lonely Integer

Lonely Integer

by dheeraj

| Problem | Submissions | Leaderboard | Discussions | Editorial | Topics |

Consider an array of n integers, $A = [a_0, a_1, \ldots, a_{n-1}]$, where all but one of the integers occur in pairs. In other words, every element in A occurs exactly twice except for one unique element.

Given A, find and print the unique element.

Input Format

The first line contains a single integer, n, denoting the number of integers in the array.
The second line contains n space-separated integers describing the respective values in A.

Constraints

- $1 \leq n < 100$

- It is guaranteed that n is an odd number.

- $0 \leq a_i \leq 100$, where $0 \leq i < n$.

Output Format

Print the unique number that occurs only once in A on a new line.

Sample Input 0

```
1
1
```

Sample Output 0

```
1
```

Explanation 0
The array only contains a single 1, so we print 1 as our answer.

Sample Input 1

```
3
1 1 2
```

Sample Output 1

```
2
```

Explanation 1
We have two 1's and one 2. We print 2, because that's the only unique element in the array.
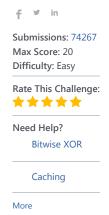
Sample Input 2

```
5
0 0 1 2 1
```

Sample Output 2

2

Explanation 2

We have two **0**'s, two **1**'s, and one **2**. We print **2**, because that's the only unique element in the array.

Submissions: 74267
Max Score: 20
Difficulty: Easy

Rate This Challenge:
★★★★★

Need Help?
Bitwise XOR

Caching

More

Current Buffer (saved locally, editable)   ⌥ ↺   C# ⌄   ⛶ ⚙

```csharp
 5  using System;
 6  using System.Collections.Generic;
 7  using System.IO;
 8  class Solution {
 9
10      static int lonelyinteger(int[] a) {
11
12          int unico = 0;
13
14          for (int i = 0; i < a.Length; i++)
15          {
16              unico ^= a[i];
17          }
18
19          return unico;
20      }
21      static void Main(String[] args) {
22          int res;
23
24          int _a_size = Convert.ToInt32(Console.ReadLine());
25          int[] _a = new int [_a_size];
26          int _a_item;
27          String move = Console.ReadLine();
28          String[] move_split = move.Split(' ');
29          for(int _a_i = 0; _a_i < move_split.Length; _a_i++) {
30              _a_item = Convert.ToInt32(move_split[_a_i]);
31              _a[_a_i] = _a_item;
32          }
33          res = lonelyinteger(_a);
34          Console.WriteLine(res);
35      }
36  }
37
```

Line: 32 Col: 10

⬆ Upload Code as File   ☐ Test against custom input   Run Code   Submit Code

---

Congrats, you solved this challenge!

✔ Test Case #0   ✔ Test Case #1   ✔ Test Case #2

✔ Test Case #3   ✔ Test Case #4   ✔ Test Case #5

✔ Test Case #6   ✔ Test Case #7   ✔ Test Case #8

Next Challenge

Join us on IRC at #hackerrank on freenode for hugs or bugs.

Contest Calendar | Interview Prep | Blog | Scoring | Environment | FAQ | About Us | Support | Careers | Terms Of Service | Privacy Policy | Request a Feature