**Find the Odd Occurence**

[array](http://www.practice.geeksforgeeks.org/tag-page.php?tag=array&isCmp=0)[bit](http://www.practice.geeksforgeeks.org/tag-page.php?tag=bit&isCmp=0)[hashing](http://www.practice.geeksforgeeks.org/tag-page.php?tag=hashing&isCmp=0)

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Given an array of positive integers. All numbers occur even number of times except one number which occurs odd number of times. Find the number.

**Expected Time Complexity**: O(n)  
**Expected Auxiliary Space​**: Constant

**Input:**

The first line of input contains a single integer T denoting the number of test cases. ThenT test cases follow. Each test case consist of two lines.

The first line of each test case consists of an integer N, where N is the size of array.  
The second line of each test case contains N space separated integers denoting array elements.

**Output:**

Corresponding to each test case, print in a new line, the number which occur odd number of times.

**Constraints:**

1 ≤ T ≤ 100  
1 ≤ N ≤ 202  
1 ≤ A[i] ≤ 1000  
  
**Example:**

**Input**  
1  
5  
8 4 4 8 23

**Output**  
23

\*\*For More Examples Use Expected Output\*\*

<http://www.practice.geeksforgeeks.org/problem-page.php?pid=836>

#include <iostream>

#include <stdio.h>

#include <map>

using namespace std;

int main() {

int t;

scanf("%d", &t);

while(t--) {

int n;

scanf("%d", &n);

int arr[n];

for(int i =0; i<n; i++) {

scanf("%d", &arr[i]);

}

std::map<int,int> m;

for(int i =0; i<n; i++) {

m[arr[i]] ++;

}

int ans = -1;

for(std::map<int,int>::iterator it = m.begin(); it != m.end(); it ++) {

if(it->second % 2 != 0) {

ans = it->first;

}

}

cout << ans << endl;

}

return 0;

}