# 1029 Ignatius and the Princess IV

### 一、题目

#### 问题描述

“OK, you are not too bad, em… But you can never pass the next test.” feng5166 says.

“I will tell you an odd number N, and then N integers. There will be a special integer among them, you have to tell me which integer is the special one after I tell you all the integers.” feng5166 says.

“But what is the characteristic of the special integer?” Ignatius asks.

“The integer will appear at least (N+1)/2 times. If you can’t find the right integer, I will kill the Princess, and you will be my dinner, too. Hahahaha…..” feng5166 says.

Can you find the special integer for Ignatius?

#### 输入数据

The input contains several test cases. Each test case contains two lines. The first line consists of an odd integer N(1<=N<=999999) which indicate the number of the integers feng5166 will tell our hero. The second line contains the N integers. The input is terminated by the end of file.

#### 输出数据

For each test case, you have to output only one line which contains the special number you have found.

#### 输入样例

5 1 3 2 3 3 11 1 1 1 1 1 5 5 5 5 5 5 7 1 1 1 1 1 1 1

#### 输出样例

3 5 1

#### 题目来源

HDU 1029 http://acm.hdu.edu.cn/showproblem.php?pid=1029

### 二、题解

#### 解题思路

找到第一个出现了（n+1）/2次的数。a【i】表示i出现的次数

#### 参考程序

#include<stdio.h>  
#include<string.h>  
int a[1000000];  
int main()  
{  
 int n;  
 int i,t,x,z;  
 while(scanf("%d",&n)!=EOF)  
 {  
 memset(a,0,sizeof(a));  
 t=(n+1)/2;  
 for(i=0;i<n;i++)  
 {  
 scanf("%d",&x);  
 a[x]++;  
 if(a[x]>=t)  
 {  
 z=x;  
 }   
 }  
 printf("%d\n",z);  
 }  
}

#### 复杂度分析

无

#### 编程技巧

无