#include <iostream>

using namespace std;

/\*\*

\*A = {a1, a2, ... ,an},如果某一元素在A中的个数 m > n/2，则称其为主元素

\*找到 A的主元素，如果有，则返回，否则 输出-1

\*/

int mainElement(int \*a, int length) {

int n = 1;

int x = a[0];

for(int i = 1; i < length; i++) {

if(a[i]!=x) {

n--;

if(n==-1) {

x = a[i];

n = 1;

}

} else n++;

}

if(n>-1) {

n = 0;

for(int i = 0; i < length; i++)

if(a[i] == x)

n++;

cout<<"length:"<<length<<"|n:"<<n<<"|x:"<<x<<endl;

if(n>length/2)

return x;

}

return -1;

}

int main(int argc, char\*\* argv) {

int A[] = {1,1,1,2,3,2,1,2,2,2,2,1,2,1};

int \*a = A;

int length = sizeof(A)/sizeof(A[0]);

int main = mainElement(a, length);

cout<<main<<endl;

return 0;

}

