

VE EVENTS

# **ALCoding Challenge - Summer 2019**

LIVE INVITE ONLY ACCESS

Jul 12, 2019, 11:30 AM EDT - Jul 12, 2019, 02:30 PM EDT

INSTRUCTIONS PROBLEMS SUBMISSIONS LEADERBOARD ANALYTICS JUDGE

← Problems / Perfect Leather Balls Set

### Perfect Leather Balls Set

Max. Marks: 56

In the game of Cricket, the leather ball plays a key role. In case of any ball being lost, it has to be replaced with a similar type of ball, and should make no difference to the match. Because of this reason, they keep a set of similar type of leather balls.

Given **N** Leather balls of a type, and there are **C** different types. A Set of Leather balls for the match is perfect if more than half the balls on it are of the same type. In other words, if there are **K** balls in the set, it is perfect if strictly more than K/2 balls are of the same type.

Write a program that will check for perfect Sets out of the given M Sets, and what type is dominating in the Set if it is perfect. A type is said to be dominating if there are strictly greater than K / 2 balls of the same type.

## Input:-

First line contains two integers N and C, number of Balls and number of Types.

Second line contains N integers between 1 and C (inclusive), indicating the type of each ball.

Third line contains M, number of Sets.

Next M lines contain two integers A and B (1  $\leq$  A  $\leq$  B  $\leq$  N). Each line describes one set. In it, there are all Balls starting from A<sup>th</sup> all the way to the B<sup>th</sup>.

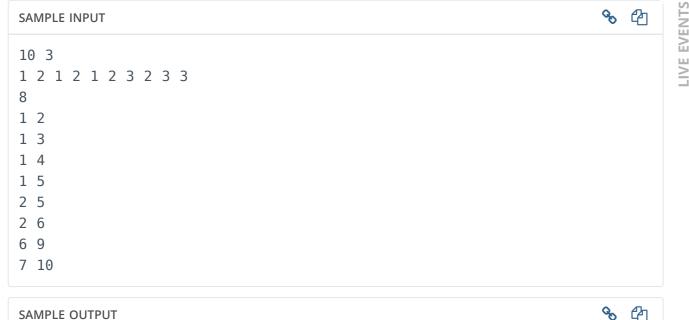
## **Output:-**

Output M lines. For each Set output "**no**" if the set is not perfect, and "**yes X**", where X is the type dominating in the Set, if it is perfect.

## **Constraints:-**

?

- $3 \le N \le 300000$ ,
- 1 ≤ C ≤ 100000
- 1 ≤ M ≤ 100000



SAMPLE OUTPUT	S	අ
no		
yes 1		
no		
yes 1		
no		
yes 2		
no		
yes 3		

#### **Explanation**

From interval 1 2, the types are 1,2. So this is not a Perfect Set as dominationg type is not>K/2

From interval 1 3, the types are 1,2,1. So this is a perfect set as dominationg type is 1 which occurs 2 times >3/2.

Time Limit: 0.62 sec(s) for each input file.

Memory Limit: 256 MB

Source Limit: 1024 KB

Marking Scheme: Marks are awarded if any testcase passes.

Allowed Languages: C, C++, C++14, Java, Python, Python 3

### **CODE EDITOR**

Enter your code or Upload your code as file. Save C (gcc 5.4.0) ?

```
#deflydemaxdiooboo
 3
     int main(void){
 4
          int n,c;
scanf("%d %d",&n,&c);
 5
 6
 7
          int u[n];
          for(int i=0; i<n; i++)</pre>
 8
               scanf("%d",u+i);
 9
10
          int m;
          scanf("%d",&m);
11
          for(int i=0; i<m; i++){</pre>
12
                int a,b,f=1,s[MAX]={0};
13
               scanf("%d %d",&a,&b);
14
               for(int j = a-1; j<b; j++)
    s[u[j]-1]++;</pre>
15
16
                int k = (b-a+1)/2;
17
               for(int j=0; j<c; j++){
    if(s[j] > k){
18
19
20
                            = 0;
                          printf("yes ");
printf("%d\n",j+1);
21
22
23
                          break;
24
25
               if(f)
26
27
                    printf("no\n");
28
29
          return 0;
30
                                                                                                                 1:1
31
```

Press Ctrl/Command+Spacebar for autocomplete suggestions (accuracy dependent on connection stability).

#### ■ Provide custom input

COMPILE & TEST

Submission ID: 28082934 / 3 seconds ago

SUBMIT

RESULT: • Partially Accepted						
<b>Score</b> 4.0	<b>Time (sec)</b> 6.18009	Memory (KiB) 1760	<b>Language</b> C			
Input	Result	Time (sec)	Memory (KiB)	Score		
Input #1	<b>C</b>	1.011748	1756	0		
Input #2	<b>C</b>	1.014329	1756	0		
Input #3	<b>C</b>	1.011955	1760	0		
Input #4	<b>C</b>	1.00937	1752	0		
Input #5	<b>€</b> ▲	1.010521	1756	0		

Input #7

**P** 

1.01107

1760

0

### **Compilation Log**

No compilation log for this submission.

FVENTS

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**Tip:** You can submit any number of times you want. Your best submission is considered for computing total score.

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