01 : 01 : 57
HRS MIN SEC

Finish Test

ALCoding Challenge - Summer 2019

LIVE INVITE ONLY ACCESS

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

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 ($1 \le A \le B \le N$). Each line describes one set. In it, there are all Balls starting from A^{th} all the way to the B^{th}.

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 ≤ N ≤ 300000,
- 1 ≤ C ≤ 100000
- 1 ≤ M ≤ 100000

SAMPLE INPUT

```
10 3
1 2 1 2 1 2 3 2 3 3
8
1 2
1 3
1 4
1 5
2 5
2 6
6 9
7 10
```

SAMPLE OUTPUT

```
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)

```c
#include<stdio.h>
#define MAX 100000

int main(void){
    int n,c;
    scanf("%d %d",&n,&c);
    int u[n];
    for(int i=0; i<n; i++)
        scanf("%d",u+i);
    int m;
    scanf("%d",&m);
    for(int i=0; i<m; i++){
        int a,b,f=1,s[MAX]={0};
        scanf("%d %d",&a,&b);
        for(int j = a-1; j<b; j++)
            s[u[j]-1]++;
        int k = (b-a+1)/2;
        for(int j=0; j<c; j++){
            if(s[j] > k){
                f = 0;
                printf("yes ");
                printf("%d\n",j+1);
                break;
            }
        }
        if(f)
            printf("no\n");
    }
    return 0;
}
```

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LIVE EVENTS

1:1

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

Provide custom input

COMPILE & TEST SUBMIT

Submission ID: 28082934 / 3 seconds ago

RESULT: Partially Accepted

Score	Time (sec)	Memory (KiB)	Language
4.0	6.18009	1760	C

Input	Result	Time (sec)	Memory (KiB)	Score
Input #1	⚠	1.011748	1756	0
Input #2	⚠	1.014329	1756	0
Input #3	⚠	1.011955	1760	0
Input #4	⚠	1.00937	1752	0
Input #5	⚠	1.010521	1756	0
Input #6	✓	0.111097	64	4

?

Input #7		1.01107	1760	0

Compilation Log

No compilation log for this submission.

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

Support: For any queries or issues, write to atmikajoy@gmail.com.

Your Rating:

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