REC-CIS

GE23131-Programming Using C-2024

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Question **1**

Correct

Marked out of 5.00

⚑ Flag question

Sunny and Johnny like to pool their money and go to the ice cream parlor. Johnny never buy other rule they have is that they spend all of their money.

Given a list of prices for the flavors of ice cream, select the two that will cost all of the money

For example, they have **m = 6** to spend and there are flavors costing **cost = [1, 2, 3, 4, 5, 6]**. criteria. Using **1**-based indexing, they are at indices **1** and **4**.

Function Description

Complete the code in the editor below. It should return an array containing the indices of the

It has the following:

· 		m: an integer denoting the amount of money they have to spend
· 		cost: an integer array denoting the cost of each flavor of ice cream

Input Format

The first line contains an integer, **t**, denoting the number of trips to the ice cream parlor. The is described as follows:

1. 		The integer **m**, the amount of money they have pooled.
2. 		The integer **n**, the number of flavors offered at the time.
3. 		**n** space-separated integers denoting the cost of each flavor: **cost[cost[1], cost[2], . . . ,**

Note: The index within the cost array represents the flavor of the ice cream purchased.

Constraints

· 		**1 ≤ t ≤ 50**
· 		**2 ≤ m ≤ 10^4**
· 		**2 ≤ n ≤ 10^4**
· 		**1 ≤ cost[i] ≤ 10^4, " i Î [1, n]**
· 		There will always be a unique solution.

Output Format

For each test case, print two space-separated integers denoting the indices of the two flavors

Sample Input

2

4

4
4
2 2 4 3

Sample Output

1 4
1 2

Explanation

Sunny and Johnny make the following two trips to the parlor:

1. The first time, they pool together *m = 4* dollars. Of the five flavors available that day, fla
2. The second time, they pool together *m = 4* dollars. TOf the four flavors available that da

Answer: (penalty regime: 0 %)

```c
1  #include<stdio.h>
2
3  int main(){
4      int t,m,n,c=0;
5      scanf("%d",&t);
6      for(int i=0;i<t;i++)
7      {
8          c=0;
9          scanf("%d\n%d", &m,&n);
10         int arr[n];
11         for(int j=0;j<n;j++)
12         {
13             scanf("%d", &arr[j]);
14         }
15         for(int a=0; a<n-1;a++)
16         {
17             for(int b=a+1;b<n;b++)
18             {
19                 if(arr[a]+arr[b]==m)
20                 {
21                     printf("%d %d\n", a+1,b+1);
22                     c=1; break;
23                 }
24                 if(c==1) break;
25             }
26         }
27     }
28 return 0; }
29
```

	Input	Expected	Got	
	2 4 5 1 4 5 3 2 4 4 2 2 4 3	1 4 1 2	1 4 1 2	

Passed all tests!

| Question **2** |
| Correct |

Numeros the Artist had two lists that were permutations of one another. He was very proud.
exhibition to another, some numbers were lost out of the first list. Can you find the missing n

numbers missing are *[4, 6]*.

Notes

·   If a number occurs multiple times in the lists, you must ensure that the frequency of tha
the case, then it is also a missing number.

·   You have to print all the missing numbers in ascending order.

·   Print each missing number once, even if it is missing multiple times.

·   The difference between maximum and minimum number in the second list is less than

Complete the code in the editor below. It should return an array of missing numbers.

It has the following:

·   arr: the array with missing numbers

·   brr: the original array of numbers

Input Format

There will be four lines of input:

n - the size of the first list, *arr*

The next line contains *n* space-separated integers *arr[i]*

m - the size of the second list, *brr*

The next line contains *m* space-separated integers *brr[i]*

Constraints

· $1 \leq n, m \leq 2 \times 10^5$

· $n \leq m$

· $1 \leq brr[i] \leq 2 \times 10^4$

· $X_{max} - X_{min} < 101$

Output Format

Output the missing numbers in ascending order.

Sample Input

10

203 204 205 206 207 208 203 204 205 206

13

203 204 204 205 206 207 205 208 203 206 205 206 204

Sample Output

204 205 206

Explanation

204 is present in both arrays. Its frequency in *arr* is *2*, while its frequency in *brr* is *3*. Similarly,
in *brr*. The rest of the numbers have the same frequencies in both lists.

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```
 2
 3   int main(){
 4       int n,m,c,c1=0,co;
 5       scanf("%d", &n);
 6       int arr[n];
 7       for(int a=0;a<n;a++){
 8           scanf("%d", &arr[a]);
 9       }
10       scanf("%d",&m);
11       int brr[m],ans[m];
12       for(int b=0;b<m;b++){
13           scanf("%d", &brr[b]);
14       }
15       for(int j=0;j<m;j++)
16       {
17           c=0;
18           for(int i=0;i<n;i++){
19           if((arr[i]==brr[j])){
20               c=1;
21               arr[i]=-1;
22               break;
23               }
24           }
25           if(c==0){
26               ans[c1]=brr[j];
27               c1++;
28           }
29       }
30       for(int a=0;a<c1;a++){
31           co=0;
32           for(int b=0;b<c1;b++){
33               if(ans[b]<ans[a])
34               co++;
35           }
36           int temp=ans[a];
37           ans[a]=ans[co];
38           ans[co]=temp;
39       }
40       for(int i=0;i<c1;i++)
41       printf("%d ", ans[i]);
42       return 0;
43       }
```

	Input	Expected	Got
	10 203 204 205 206 207 208 203 204 205 206 13 203 204 204 205 206 207 205 208 203 206 205 206 204	204 205 206	204 205 206

Passed all tests!

Question 3

Correct

Marked out of 5.00

⚐ Flag question

Watson gives Sherlock an array of integers. His challenge is to find an element of the array su
equal to the sum of all elements to the right. For instance, given the array *arr = [5, 6, 8, 11]*,
your starting array is *[1]*, that element satisfies the rule as left and right sum to *0*.

You will be given arrays of integers and must determine whether there is an element that me

Complete the code in the editor below. It should return a string, either YES if there is an elem

It has the following:

·   arr: an array of integers

Input Format

- The first line contains *n*, the number of elements in the array *arr*.
- The second line contains *n* space-separated integers *arr[i]* where $0 \le i < n$.

Constraints

- $1 \le T \le 10$
- $1 \le n \le 10^5$
- $1 \le arr[i] \le 2 \times 10^4$
- $0 \le i \le n$

Output Format

For each test case print YES if there exists an element in the array, such that the sum of the el
elements on its right; otherwise print NO.

Sample Input 0

2
3
1 2 3
4
1 2 3 3

Sample Output 0

NO
YES

Explanation 0

For the first test case, no such index exists.
For the second test case, *arr[0] + arr[1] = arr[3]*, therefore index *2* satisfies the given condit

Sample Input 1

3
5
1 1 4 1 1
4
2 0 0 0
4
0 0 2 0

Sample Output 1

YES
YES
YES

Explanation 1

In the third case, **arr[2]** **= 2** is between two subarrays summing to **0**.

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>

int main(){
    int t,n,Is,rs,m;
    scanf("%d",&t);
    for(int i=0;i<t;i++){
        Is=0;
        rs=0;
        scanf("%d",&n);
        int arr[n];
        for(int j=0;j<n;j++)
        scanf("%d", &arr[j]);
        m=n/2;
        if(arr[m]==0){
            for(m=0;arr[m]==0 && m<n;m++);
        }
        for(int j=0;j<=m;j++)
        Is=Is+arr[j];
        for(int j=m;j<n;j++)
        rs=rs+arr[j];
        printf("%s\n",(Is==rs)?"YES":"NO");
    }
    return 0;
}
```

	Input	Expected	Got	
	3 5 1 1 4 1 1 4 2 0 0 0 4 0 0 2 0	YES YES YES	YES YES YES	
	2 3 1 2 3 4 1 2 3 3	NO YES	NO YES	

Passed all tests!