Question 1

Correct

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Flag question

Sunny and Johnny like to pool their money and go to the ice cream parlor. Johnny never buys the same flavor that Sunny does. The only 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 they have.

For example, they have m = 6 to spend and there are flavors costing cost = [1, 2, 3, 4, 5, 6]. The two flavors costing 1 and 5 meet the 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 prices of the two flavors they buy.

It has the following:

mi on integer denoting the emount of

# ▲ rajalakshmicolleges.org/mo

## **Output Format**

For each test case, print two spaceseparated integers denoting the indices of the two flavors purchased, in ascending order.

## Sample Input

2

4

5

14532

4

4

2243

## **Sample Output**

14

12

## **Explanation**

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

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

Passed all tests! ✓

```
1
 2 🔻
 3
 4
 5 ▼ <t;i++){
 6
 7
    \n%d",&m,&n);
 8
    ];
 9 = 0; j < n; j + +)
    ("%d",&arr[j]);
10
11
12 \neq =0; a < n-1; a++){
13 \cdot nt b=a+1; b<n; b++)
14 ⋅ f(arr[a]+arr[b]==m){
       printf("%d %d\n",a+1,b+1);
15
16
       c=1;break;
17
18
    ==1) break;
19
20
21
22
```

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

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Question 2

Correct

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

As an example, the array with some numbers missing, arr = [7, 2, 5, 3, 5, 3]. The original array of numbers brr = [7, 2, 5, 4, 6, 3, 5, 3]. The numbers missing are [4, 6].

#### **Notes**

- If a number occurs multiple times in the lists, you must ensure that the frequency of that number in both lists is the same. If that is not 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

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 ≤ n, m ≤ 2 x  $10^5$
- . n ≤ m
- $1 \le brr[i] \le 2 \times 10^4$
- $X_{max} X_{min} < 101$

### **Output Format**

```
#1nclude<std10.n>
 2 *
    int main(){
 3
         int n, m, c, c1=0, co;
         scanf("%d",&n);
 4
 5
         int arr[n];
         for(int a=0;a<n;a++){</pre>
 6 •
              scanf("%d",&arr[a]);
 7
 8
         }
         scanf("%d",&m);
 9
10
         int brr[m],ans[m];
         for(int b=0;b<m;b++){</pre>
11 🔻
         scanf("%d",&brr[b]);
12
13
    for(int j=0; j<m; j++){</pre>
14 🔻
15
         c=0;
         for(int i=0;i<n;i++){</pre>
16 •
              if(arr[i]==brr[j]){
17 🔻
18
                   c=1;
                   arr[i]=1;
19
                  break;
20
21
              }
22
         if(c==0){
23 •
24
              ans[c1]=brr[j];
25
              c1++;
26
         }
27
28 •
    for(int a=0;a<c1;a++){
29
         co=0;
         for(int b=0;b<c1;b++){</pre>
30 ▼
              if(ans[b]<ans[a])</pre>
31
32
              co++;
33
         int temp=ans[a];
34
         ans[a]=ans[co];
35
36
         ans[co]=temp;
37
    for(int i=0;i<c1;i++)
38
    printf("%d ",ans[i]);
39
40
    }
```

```
27
    for(int a=0;a<c1;a++){
28 •
29
         co=0;
         for(int b=0;b<c1;b++){</pre>
30 ▼
              if(ans[b]<ans[a])</pre>
31
32
              co++;
33
         int temp=ans[a];
34
35
         ans[a]=ans[co];
36
         ans[co]=temp;
37
    for(int i=0;i<c1;i++)</pre>
38
    printf("%d ",ans[i]);
39
40
    }
```

	Input							
~	10	204	205	206	207	200	202	20
	13	204	205	206	207	208	203	20
	203	204	204	205	206	207	205	20

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Question 3

Correct

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Flag question

Watson gives Sherlock an array of integers.

His challenge is to find an element of the

the left is equal to the sum of all elements to the right. For instance, given the array **arr** = **[5, 6, 8, 11]**, **8** is between two subarrays that sum to **11**. If 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 meets the criterion.

Complete the code in the editor below. It should return a string, either YES if there is an element meeting the criterion or NO otherwise.

It has the following:

· arr: an array of integers

### **Input Format**

The first line contains *T*, the number of test cases.

The next **T** pairs of lines each represent a test case.

- The first line contains *n*, the number of elements in the array *arr*.
- The second line contains n spaceseparated integers arr[i] where 0 ≤ i < n.</li>

## Sample Input 0

2

3

123

4

1233

## 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 conditions.

## Sample Input 1

3

5

11411

```
#include<stdio.h>
 2 •
    int main(){
 3
         int t,n,Is,rs,m;
         scanf("%d",&t);
 4
 5 ▼
         for(int i=0;i<t;i++){</pre>
 6
             Is=0;
 7
             rs=0;
             scanf("%d",&n);
 8
 9
             int arr[n];
10
             for(int j=0;j<n;j++)</pre>
11
             scanf("%d",&arr[j]);
             m=n/2;
12
13 •
             if(arr[m]==0){
                  for(m=0;arr[m]==
14
15
             for(int j=0;j<=m;j++</pre>
16
             Is=Is+arr[j];
17
             for(int j=m;j<n;j++)</pre>
18
19
             rs=rs+arr[j];
             printf("%s\n",(Is==r
20
21
         }
22
    }
```

	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	<b>~</b>
<b>~</b>	2 3 1 2 3 4 1 2 3 3	NO YES	NO YES	<b>~</b>

```
%d",&n);
 8
 9
    [n];
    j=0;j<n;j++)
10
    %d",&arr[j]);
11
12
13 * [m] == 0){
    (m=0;arr[m]==0 && m<n;m++);
14
15
    j=<mark>0</mark>;j<=m;j++)
16
17
    rr[j];
    j=m;j<n;j++)
18
19
    rr[j];
    "%s\n",(Is==rs)?"YES":"NO");
20
21
22
```

	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	<b>~</b>
<b>~</b>	2 3 1 2 3 4 1 2 3 3	NO YES	NO YES	<b>~</b>

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