

WEEK 7

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, flavors **1** and **4** have a total cost of $1 + 3 = 4$.
2. The second time, they pool together $m = 4$ dollars. TO of the four flavors available that day, flavors **1** and **2** have a total cost of $2 + 2 = 4$.

Answer: (penalty regime: 0 %)

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

	Input	Expected	Got	
✓	2	1 4	1 4	✓
	4	1 2	1 2	

15

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, **205** and **206** occur twice in **arr**, but three times in **brr**. The rest of the numbers have the same frequencies in both lists.

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2 int main(){
3     int a,b;
4     scanf("%d",&a);
5     int arr[a];
6     for(int i=0;i<a;i++){
7         scanf("%d",&arr[i]);
8     }
9     scanf("%d",&b);
10    int brr[b];
11    for(int i=0;i<b;i++){
12        scanf("%d",&brr[i]);
13    }
14    int s=brr[0],l=brr[0];
15    for(int j=0;j<b;j++){
16        if(brr[j]<s)
17            s=brr[j];
18        else if(brr[j]>l)
19            l=brr[j];
20    }
21    int c1,c2;
22    for(int k=s;k<=l;k++){
23        c1=0,c2=0;
24        for(int m=0;m<a;m++){
25            if(arr[m]==k)
26                c1++;
27        }
28        for(int n=0;n<b;n++){
29            if(brr[n]==k)
30                c2++;
31        }
32        if(c1!=c2){
33            for(int p=0;p<c2-c1;p++){
34                printf("%d ",k);
35            }
36        }
37    }
38 }
```

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

YES

YES

YES

Explanation 1

In the first test case, **arr[2] = 4** is between two subarrays summing to **2**.

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

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

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2 int main(){
3     int t;
4     scanf("%d",&t);
5     while(t--){
6         int n,flag=0;
7         scanf("%d",&n);
8         int arr[n];
9         for (int i=0;i<n;i++){
10             scanf("%d",&arr[i]);
11         }
12         int mid,s1,s2;
13         int ps=0,pe=n-1;
14         while(ps<=pe){
15             mid=(ps+pe)/2;
16             s1=0,s2=0;
17             for(int s=0;s<mid;s++){
18                 s1+=arr[s];
19             }
20             for(int l=n-1;l>mid;l--){
21                 s2+=arr[l];
22             }
23             if(s1==s2){
24                 flag=1;
25                 break;
26             }
27             else if(s1<s2){
28                 ps=mid+1;
29             }
30             else{
31                 pe=mid-1;
32             }
33         }
34         if(flag==1)
35             printf("YES\n");
36         else
37             printf("NO\n");
38     }
39 }
```

	Input	Expected	Got	
✓	3	YES	YES	✓
	5	YES	YES	
	1 1 4 1 1	YES	YES	