

Output format

Print 1 if such a pair exists and 0 if it doesn't.

Example

Input:

```
1
3 1 3 5
4
```

Output:

```
1
```

Input:

```
1
3 1 3 5
99
```

Output:

```
0
```

Answer: (penalty regime: 0 %)

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

	Input	Expected	Got	
✓	1 3 1 3 5 4	1	1	✓
✓	1 3 1 3 5 99	0	0	✓

Passed all tests! ✓

Sam loves chocolates and starts buying them on the 1st day of the year. Each day of the year, x , is numbered from 1 to Y . On days when x is odd, Sam will buy x chocolates; on days when x is even, Sam will not purchase any chocolates.

REC-CIS

Sample Input 0

3
1
2
3

Sample Output 0

1
1
4

Explanation

Test Case 0: N = 1

Sam buys 1 chocolate on day 1, giving us a total of 1 chocolate. Thus, we print 1 on a new line.

Test Case 1: N = 2

Sam buys 1 chocolate on day 1 and 0 on day 2. This gives us a total of 1 chocolate. Thus, we print 1 on a new line.

Test Case 2: N = 3

Sam buys 1 chocolate on day 1, 0 on day 2, and 3 on day 3. This gives us a total of 4 chocolates. Thus, we print 4 on a new line.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int t;
5     scanf("%d",&t);
6     while(t--){
7         int n,c=0;
8         scanf("%d",&n);
9         for(int i=0;i<=n;i++){
10             if(i%2!=0) c=c+i;
11         }
12         printf("%d\n",c);
13     }
14 }
```

	Input	Expected	Got	
✓	3	1	1	✓
	1	1	1	
	2	4	4	
	3			
✓	10	1296	1296	✓
	71	2500	2500	
	100	1849	1849	
	86	729	729	
	54	400	400	
	40	25	25	
	9	1521	1521	
	77	25	25	
	9	49	49	
	13	2401	2401	
	98			

Passed all tests! ✓

Question 3

Correct

Marked out of 7.00

Flag question

The number of goals achieved by two football teams in matches in a league is given in the form of two lists. Consider:

Football team A has played three matches, and has

Sample Output 1

1
0
3
4

Explanation 1

We are given, $n = 5$, $\text{nums} = [2, 10, 5, 4, 8]$, $m = 4$, and $\text{maxes} = [3, 1, 7, 8]$.

1. For $\text{maxes}[0] = 3$, we have 1 element in nums ($\text{nums}[0] = 2$) that is $\leq \text{maxes}[0]$.
2. For $\text{maxes}[1] = 1$, there are 0 elements in nums that are $\leq \text{maxes}[1]$.
3. For $\text{maxes}[2] = 7$, we have 3 elements in nums ($\text{nums}[0] = 2$, $\text{nums}[2] = 5$, and $\text{nums}[3] = 4$) that are $\leq \text{maxes}[2]$.
4. For $\text{maxes}[3] = 8$, we have 4 elements in nums ($\text{nums}[0] = 2$, $\text{nums}[2] = 5$, $\text{nums}[3] = 4$, and $\text{nums}[4] = 8$) that are $\leq \text{maxes}[3]$.

Thus, the function returns the array $[1, 0, 3, 4]$ as the answer.

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int s1,s2,ans;
5     scanf("%d",&s1);
6     int ta[s1];
7     for(int i=0;i<s1;i++){
8         scanf("%d",&ta[i]);
9     }
10    scanf("%d",&s2);
11
12    int tb[s2];
13    for(int i=0;i<s2;i++){
14        scanf("%d",&tb[i]);
15    }
16    for(int j=0;j<s2;j++){
17        ans=0;
18        for(int i=0;i<s1;i++){
19            if(tb[j]>=ta[i])
20                ans++;
21        }
22    }
23    printf("%d\n",ans);
24 }
25
26
27
28
29 }
```

	Input	Expected	Got	
✓	4	2	2	✓
	1	4	4	
	4			
	2			
	4			
	2			
	3			
	5			
✓	5	1	1	✓
	2	0	0	
	10	3	3	
	5	4	4	
	4			
	8			
	4			
	3			
	1			
	7			
	8			

Passed all tests! ✓

1 4 5 3 2
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, flavors 1 and 4 have a total cost of $1 + 3 = 4$.
2. The second time, they pool together $m = 4$ dollars. 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 {
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            scanf("%d",&arr[j]);
13        }
14        for(int a=0;a<n-1;a++){
15            for(int b=a+1;b<n;b++){
16                if(arr[a]+arr[b]==m){
17                    printf("%d %d\n",a+1,
18                        c=1;break;
19                }
20            }if(c==1) break;
21        }
22    }
23    return 0;
24 }
```

	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! ✓

Question 2

Correct

Marked out of 5.00

Flag question

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

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, 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 {
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++;
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
✓	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
Passed all tests! ✓	

Watson gives Sherlock an array of integers. His challenge is to find an element of the array such that the sum of all elements to 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.

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
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 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,n,is,rs,m;
4     scanf("%d",&t);
5     for(int i=0;i<t;i++){
6         is=0;
7         rs=0;
8         scanf("%d",&n);
9         int arr[n];
10        for(int j=0;j<n;j++){
11            scanf("%d",&arr[j]);
12            m=n/2;
13        }
14        if(arr[m]==0){
15            for(m=0;arr[m]==0&& m<n;m++){
16            }
17            for(int j=0;j<=m;j++){
18                is=arr[j];
19            }
20            for(int j=m;j<n;j++){
21                rs=arr[j];
22            }
23            printf("%s\n",(is==rs)? "YES": "NO");
24        }
25        return 0;
26    }
```

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

Passed all tests! ✓