Question 1 Given an array A of sorted integers and another non negative integer k, find if there exists 2 indices ( and j such that A[i] - A[j] = k, i != j. Correct Marked out of Input Format 3.00 P Flag question 1. First line is number of test cases T. Following T lines contain: 2. N, followed by N integers of the array 3. The non-negative integer k Output format Print 1 if such a pair exists and 0 if it doesn't. Example Input: 3135 Output.

0

Input

3135

99

Output:

Answer: (penalty regime: 0 %)

```
1 #include<stdio.h>
   int main()
2
3 . [
        int t;
4
5
        scanf("%d",&t);
        while(t-)
6
7 .
            int n;
8
            scanf("%d",&n);
9
            int a[n];
10
            for(int i=0;i<n;i++)
11
12
               scanf("%d",&a[i]);
13
14
            int k;
15
            scanf("%d".&k):
16
```

D

```
13
                scant("%d", &a[1]);
14
15
             int k;
             scanf("%d",&k);
16
17
             int flag=0;
             for(int i=0;i<n;i++)
18
19 +
                 for(int j=0;j<n;j++)
20
21 +
                      if(a[i]-a[j]==k || a[j]-a[i]==k)
22
23 +
                         flag=1;
24
25
                         break;
26
                      if(flag)
 27
 28
                      break;
 29
 30
             printf("%d\n",flag);
 31
 32
              return 0;
 33
 34 }
```

	Input	Expected	Got	
~	1 3 1 3 5 4	1	1	~
1	1 3 1 3 5 99	9	9	~

BE

Question 2 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 Correct odd, Sam will buy x chocolates, on days when x is even, Sam will not purchase any chocolates. Marked out of Complete the code in the editor so that for each day Ni (where  $1 \le x \le N \le Y$ ) in array arr, the number of chocolates Sam purchased (during days 1 through N) is printed on a new line. This is a function-only challenge, so input is handled for you by the locked stub code in the editors. P Rag question Input Format The program takes an array of integers as a parameter. The locked code in the editor handles reading the following input from stdin, assembling it into an array of integers (arr), and calling calculate(arr). The first line of input contains an integer, T (the number of test cases). Each line i of the T subsequent lines describes the ith test case as an integer, Ni (the number of days). Constraints B 1 5 T 5 2 × 105 1 ≤ N ≤ 2 × 106  $1 \le x \le N \le Y$ Output Format

Output Format	
For each test case, Ti in arr, your calculate method should print the total number of chocolates Sam purchased by day his on a new line.	
Sample Input 0	
3	
2	
3	
Sample Output 0	
A CONTRACTOR OF THE PROPERTY O	
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.	

Di

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>
   int main()
2
3 . {
         int t;
scanf("%d",&t);
while(t--)
4
6
7
              int n,s=0;
scanf("%d",&n);
8
9
              for(int i=0;i<=n;i++)
10
11 :
                   if(1%2[=0)
12
13 +
                        5 5 1;
14
16
              printf("%d\n",s);
17
18
         ceturn 0;
19
20 }
```

Correct

Marked out of 7:00

P 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 scored [1, 2, 3] goals in each match respectively.
- Football team B, has played two matches, and has scored (2, 4) goals in each match respectively.
- Your task is to compute, for each match of team B, the total number of matches of team A, where team A has scored less than or equal
  to the number of goals scored by team B in that match.
- In the above case:
- For 2 goals scored by team B in its first match, team A has 2 matches with scores 1 and 2.
- For 4 goals scored by team B in its second match, team A has 3 matches with scores 1, 2 and 3.

Hence, the answer (2, 3).

Complete the code in the editor below. The program must return an array of m positive integers, one for each mass[i] representing the total number of elements nums[j] satisfying nums[j]  $\le \max[i]$  where  $0 \le j < n$  and  $0 \le i < m$ , in the given order.

It has the following:

nums[nums[0],...nums[n-1]]: first array of positive integers maxes[maxes[0]...maxes[n-1]]: second array of positive integers

Constraints

	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! ✓

- 1 ≤ nums[j] ≤ 109, where 0 ≤ j < n.</li>
  - 1 ≤ maxes[i] ≤ 109, where 0 ≤ i < m.</li>

Input Format For Custom Testing

Input from stdin will be processed as follows and passed to the function.

The first line contains an integer n, the number of elements in nums. The next n lines each contain an integer describing nums[j] where  $0 \le j \le n$ . The next line contains an integer m, the number of elements in maxes. The next m lines each contain an integer describing maxes[i] where  $0 \le i \le m$ .

Sample Case 0

Sample Input 0

4

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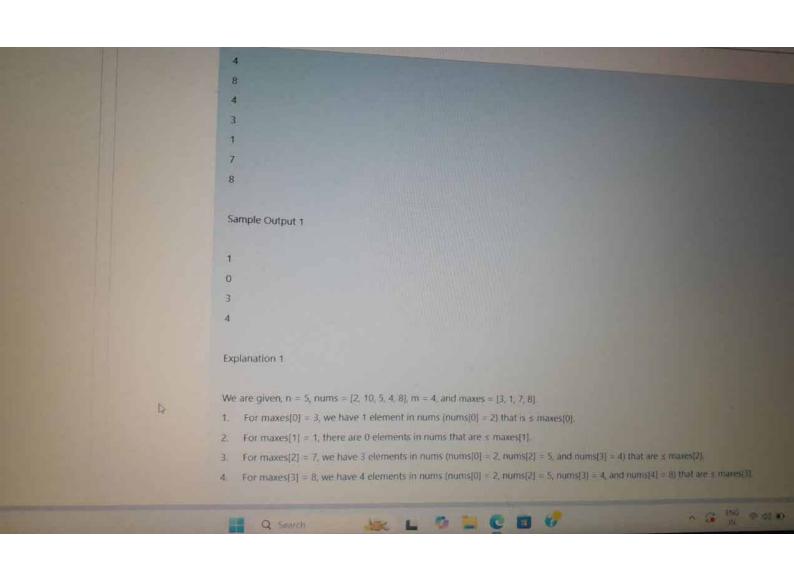
4

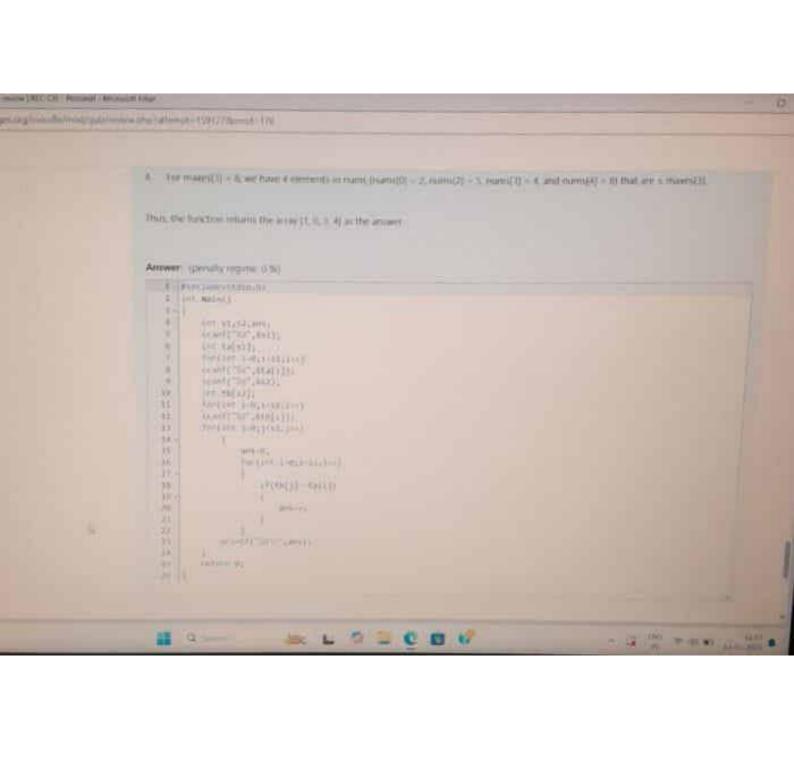
73

Δ

12

4 2 3 5 Sample Output 0 2 4 Explanation 0 We are given n = 4, nums = [1, 4, 2, 4], m = 2, and maxes = [3, 5]. For maxes[0] = 3, we have 2 elements in nums (nums[0] = 1 and nums[2] = 2) that are  $\leq$  maxes[0]. For maxes[1] = 5, we have 4 elements in nums (nums[0] = 1, nums[1] = 4, nums[2] = 2, and nums[3] = 4) that are  $\leq$  maxes[1]. Thus, the function returns the array [2, 4] as the answer. Sample Case 1 Sample Input 1





```
20 ans++;
21 }
22 }
23 printf("%d\n",ans);
24 }
25 return 0;
26 }
```

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