

G.O.A.T

Problem	Submissions	Leaderboard	Discussions
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There is a great rivalry going on between Michael Jordan and LeBron James regarding G.O.A.T (Greatest of all time title) . In order to settle this debate for once and all, Shaq gave them a quiz to solve. They are given with an array of integers **A** (whose length is **N**) and a number **G** (an integer) . They can perform one of the following steps at a time :

- 1.Subtract the the leftmost element of array **A** from the **G** and after subtracting remove this leftmost element from the array **A**
- 2.Subtract the the rightmost element of array **A** from the **G** and after subtracting remove this rightmost element from the array **A**

Their task is to reduce this number **G** to 0 in the minimum number of steps involved.If it's not possible to reduce this number to 0 , then the answer will be 0 .

Whoever answers the above quiz first wins the debate. Since you are born in the era of LeBron James, so help him win this GOAT title.

Input Format

- The first line of the input contains a single integer **T** denoting the number of test cases
- The description of **T** test cases follows.
- The first line of each test case contains a single integer **N** (the size of the array).
- The second line contains **N** space-separated integers **A[i]** (0<=i
- The third line contains a integer **G** which is to be reduced to 0

Constraints

- 1<=T<=10
- 1<= N<= 10 ^5
- 1<= A[i] <= 10^5
- 1<= G <= 10 ^9

Output Format

For each test case, print a single line containing one integer — the minimum number of steps to reduce G to 0 , If not possible output 0 .

Sample Input 0

```
2
10
2 3 2 5 7 8 2 3 1 1
7
6
5 2 1 4 6 3
2
```

Sample Output 0

```
3
0
```

Explanation 0

1st part
N=10
Array A : [2,3,2,5,7,1,8,2,3,1,1]
G= 7
Ans for this part: 3

Explanation:

Remove first 3 elements from the left side: Modified Array:[5,7,1,8,2,3,1,1]
G=0

Any other way than this will always to steps>3
For eg: Remove Leftmost 2 and RightMost 2 elements: Modified Array: [2,5,7,1,8,2,3]
G=0, But steps= 4 (>3)

2nd part
N=6
Array A : [5,2,1,4,6,3]
G=2

Ans for this part: 0

Explanation:

It's impossible to reduce value of G to 0

[f](#) [t](#) [in](#)

Submissions: 176
Max Score: 100
Difficulty: Medium

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Current Buffer (saved locally, editable)  

C++

 

```
1▼ #include <cmath>
2  #include <cstdio>
3  #include <vector>
4  #include <iostream>
5  #include <algorithm>
6  using namespace std;
7
8
9▼ int main() {
10▼    /* Enter your code here. Read input from STDIN. Print output to STDOUT */
11    return 0;
12 }
13
```

Line: 1 Col: 1

 Upload Code as File

☐ Test against custom input

Run Code

Submit Code