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<b>Started on</b>	Friday, 20 September 2024, 1:54 PM
<b>State</b>	Finished
<b>Completed on</b>	Friday, 20 September 2024, 1:54 PM
<b>Time taken</b>	31 secs
<b>Marks</b>	1.00/1.00
<b>Grade</b>	<b>10.00</b> out of 10.00 ( <b>100%</b> )

## Question 1

Correct

Mark 1.00 out of 1.00

**Problem Statement:**

Given a sorted array of integers say arr[] and a number x. Write a recursive program using divide and conquer strategy to check if there exist two elements in the array whose sum = x. If there exist such two elements then return the numbers, otherwise print as "No".

Note: Write a Divide and Conquer Solution

**Input Format**

First Line Contains Integer n – Size of array

Next n lines Contains n numbers – Elements of an array

Last Line Contains Integer x – Sum Value

**Output Format**

First Line Contains Integer – Element1

Second Line Contains Integer – Element2 (Element 1 and Elements 2 together sums to value "x")

**Answer:** (penalty regime: 0 %)

```

1  #include <stdio.h>
2
3
4  void findTwoElements(int arr[], int left, int right, int x) {
5
6      if (left >= right) {
7          printf("No\n");
8          return;
9      }
10
11
12     int current_sum = arr[left] + arr[right];
13
14     if (current_sum == x) {
15         printf("%d\n", arr[left]);
16         printf("%d\n", arr[right]);
17         return;
18     }
19
20     else if (current_sum < x) {
21         findTwoElements(arr, left + 1, right, x);
22     }
23
24     else {
25         findTwoElements(arr, left, right - 1, x);
26     }
27 }
28
29 int main() {
30     int n, x;
31
32
33     scanf("%d", &n);
34
35     int arr[n];
36
37
38     for (int i = 0; i < n; i++) {
39         scanf("%d", &arr[i]);
40     }
41
42
43     scanf("%d", &x);
44
45     findTwoElements(arr, 0, n - 1, x);
46
47     return 0;
48 }
49

```

	Input	Expected	Got	
✓	4 2 4 8 10 14	4 10	4 10	✓
✓	5 2 4 6 8 10 100	No	No	✓

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.

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