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Started on	Tuesday, 8 October 2024, 2:20 PM
State	Finished
Completed on	Tuesday, 8 October 2024, 2:20 PM
Time taken	17 secs
Marks	1.00/1.00
Grade	10.00 out of 10.00 (100%)

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  void find_two_elements(int arr[], int left, int right, int x) {
3      if (left >= right) {
4          printf("No\n");
5          return;
6      }
7      int current_sum = arr[left] + arr[right];
8      if (current_sum == x) {
9          printf("%d\n", arr[left]);
10         printf("%d\n", arr[right]);
11         return;
12     } else if (current_sum < x) {
13         find_two_elements(arr, left + 1, right, x);
14     } else {
15         find_two_elements(arr, left, right - 1, x);
16     }
17 }
18 int main() {
19     int n, x;
20     scanf("%d", &n);
21     int arr[n];
22     for (int i = 0; i < n; i++) {
23         scanf("%d", &arr[i]);
24     }
25     scanf("%d", &x);
26     find_two_elements(arr, 0, n - 1, x);
27     return 0;
28 }
```

	Input	Expected	Got	
✓	4 2 4 8 10 14	4 10	4 10	✓

	Input	Expected	Got	
✓	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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