**RAJALAKSHMI
ENGINEERING
COLLEGE**

MONIKA R 2024-CSE ⌄

M2

Started on	Wednesday, 17 September 2025, 3:55 PM
State	Finished
Completed on	Wednesday, 17 September 2025, 4:01 PM
Time taken	5 mins 4 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
2  #include <stdio.h>
3
4
5  int findPair(int arr[], int left, int right, int x, int *a, int *b) {
6      if (left >= right)
7          return 0;
8
9      int sum = arr[left] + arr[right];
10
11     if (sum == x) {
12         *a = arr[left];
13         *b = arr[right];
14         return 1;
15     } else if (sum < x) {
16         return findPair(arr, left + 1, right, x, a, b);
17     } else {
18         return findPair(arr, left, right - 1, x, a, b);
19     }
20 }
21
22 int main() {
23     int n, x;
24     scanf("%d", &n);
25
26     int arr[n];
27     for (int i = 0; i < n; i++)
28         scanf("%d", &arr[i]);
29
30     scanf("%d", &x);
31
32     int a, b;
33     if (findPair(arr, 0, n - 1, x, &a, &b)) {
34         printf("%d\n%d\n", a, b);
35     } else {
36         printf("No\n");
37     }
38
39     return 0;
40 }
41
42
```

	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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