Started on	Thursday, 19 September 2024, 10:23 AM
State	Finished
Completed on	Thursday, 19 September 2024, 11:29 AM
Time taken	1 hour 6 mins
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  void fp(int a[],int s,int e,int x){
4      int l=s, r=e;
5      while(l<r){
6          int sum=a[l]+a[r];
7          if (sum==x){
8              printf("%d\n%d\n",a[l],a[r]);
9              return;
10         }else if(sum<x) {
11             l++;
12         }else{
13             r--;
14         }
15     }
16     printf("No\n");
17 }
18 int main(){
19     int n,x;
20     scanf("%d",&n);
21     int a[n];
22     for (int i=0;i<n;i++) {scanf("%d", &a[i]);}
23     scanf("%d", &x);
24     fp(a,0,n-1,x);
25     return 0;
26 }
27
28
```

	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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