Started on	Friday, 19 September 2025, 9:16 PM
State	Finished
Completed on	Friday, 19 September 2025, 9:53 PM
Time taken	36 mins 22 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 %)

```c
#include<stdio.h>
int findpair(int arr[],int left,int right,int x,int *num1,int *num2)
{
    if(left>=right)
    {
        return 0;
    }
    if(arr[left]+arr[right]==x)
    {
        *num1=arr[left];
        *num2=arr[right];
        return 1;
    }
    if(arr[left]+arr[right]<x)
    {
        return findpair(arr,left+1,right,x,num1,num2);
    }
    return findpair(arr,left,right-1,x,num1,num2);
}
int main()
{
    int n,x;
    scanf("%d",&n);
    int arr[n];
    for(int i=0;i<n;i++)
    {
        scanf("%d",&arr[i]);
    }
    scanf("%d",&x);
    int num1=-1,num2=-1;
    if(findpair(arr,0,n-1,x,&num1,&num2))
    {
        printf("%d\n%d",num1,num2);
    }
    else
    {
        printf("No");
    }
    return 0;
}
```

	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.