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 sum(int a[],int low,int mid,int high,int x)
{
    for(int i=low;i<=mid;i++)
    {
        for(int j=mid+1;j<=high;j++)
        {
            if(a[i]+a[j]==x)
            {
            printf("%d\n%d",a[i],a[j]);
            return 1;
            }
        }
    }
    return 0;
}
int divcon(int a[],int low,int high,int x)
{
    int flag=0;
    if(low<high)
    {
        int mid=(low+high)/2;
        divcon(a,low,mid,x);
        divcon(a,mid+1,high,x);
        if(sum(a,low,mid,high,x))
        {
            flag=1;
        }
    }
    return flag;
}
int main()
{
    int n,x;
    scanf("%d",&n);
    int a[n];
    for(int i=0;i<n;i++)
    {
        scanf("%d",&a[i]);
    }
    scanf("%d",&x);
    int left=0;
    int right=n-1;
    if(!divcon(a,left,right,x))
    {
        printf("No");
    }
}
```

	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.

◄ 3-Finding Floor Value

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5-Implementation of Quick Sort ►