

**Started on** Thursday, 18 September 2025, 9:48 PM

**State** Finished

**Completed on** Friday, 19 September 2025, 8:38 PM

**Time taken** 22 hours 49 mins

**Marks** 1.00/1.00

**Grade** 10.00 out of 10.00 (100%)

**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
3  int main(){
4      int n;
5      scanf("%d",&n);
6      int a[n];
7      for(int i=0;i<n;i++)
8      {
9          scanf("%d",&a[i]);
10     }
11     int x;
12     scanf("%d",&x);
13     int low=0,high=n-1;
14     while(low<=high)
15     {
16         int cs=a[low]+a[high];
17         if(cs==x)
18         {
19             printf("%d\n",a[low]);
20             printf("%d\n",a[high]);
21             return 0;
22         }
23         else if(cs<x)
24         {
25             low++;
26         }
27         else
28         {
29             high--;
30         }
31     }
32     printf("No\n");
33 }
```

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

	Input	Expected	Got	
✓	5	No	No	✓
	2			
	4			
	6			
	8			
	10			
	100			

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.