

Started on Thursday, 18 September 2025, 9:16 AM

State Finished

Completed on Thursday, 18 September 2025, 9:25 AM

Time taken 8 mins 16 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 #include<stdio.h>
2 int main()
3 {
4     int n,x;
5     scanf("%d",&n);
6     int arr[n];
7     for(int i=0;i<n;i++)
8     {
9         scanf("%d",&arr[i]);
10    }
11    scanf("%d",&x);
12    int low=0;
13    int high=n-1;
14    while(low<high)
15    {
16        int currentSum=arr[low]+arr[high];
17        if (currentSum==x)
18        {
19            printf("%d\n",arr[low]);
20            printf("%d\n",arr[high]);
21            return 0;
22        }
23        else if(currentSum<x)
24        {
25            low++;
26        }
27        else
28        {
29            high--;
30        }
31    }
32    printf("No");
33    return 0;
34 }
```

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

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

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.