
Started on Friday, 19 September 2025, 9:30 PM

State Finished

Completed on Friday, 19 September 2025, 9:44 PM

Time taken 14 mins 12 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 findPair(int arr[],int left,int right,int x,int*num1,int*num2){
3     if(left>=right){
4         return 0;
5     }
6     if(arr[left]+arr[right]==x){
7         *num1=arr[left];
8         *num2=arr[right];
9         return 1;
10    }
11    if(arr[left]+arr[right]<x){
12        return findPair(arr,left+1,right,x,num1,num2);
13    }
14    return findPair(arr,left,right-1,x,num1,num2);
15 }
16 int main()
17 {
18     int n,x;
19     scanf("%d",&n);
20     int arr[n];
```

```
21 for(int i=0;i<n;i++){  
22     scanf("%d",&arr[i]);  
23 }  
24 scanf("%d",&x);  
25 int num1=-1,num2=-1;  
26 if(findPair(arr,0,n-1,x,&num1,&num2)){  
27     printf("%d\n%d",num1,num2);  
28 else{  
29     printf("No");  
30 }  
31 return 0;  
32 }  
33 }
```

	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.