
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	4	4	✓
	2	10	10	
	4			
	8			
	10			
	14			
✓	5	No	No	✓
	2			
	4			
	6			
	8			
	10			
	100			

Passed all tests! ✓

Correct

Marks for this submission: 1.00/1.00.