

Vedhavyas Pavankalyan G L 2023-IT-A ▾**V2****Started on** Sunday, 19 October 2025, 10:34 AM**State** Finished**Completed on** Sunday, 19 October 2025, 10:35 AM**Time taken** 45 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
3 int findPair(int arr[], int left, int right, int x, int *a, int *b) {
4     if (left >= right)
5         return 0;
6     int sum = arr[left] + arr[right];
7     if (sum == x) {
8         *a = arr[left];
9         *b = arr[right];
10        return 1;
11    }
12    if (sum > x)
13        return findPair(arr, left, right - 1, x, a, b);
14    else
15        return findPair(arr, left + 1, right, x, a, b);
16 }
17
18 int main() {
19     int n, x;
20     scanf("%d", &n);
21     int arr[n];
22     for (int i = 0; i < n; i++)
23         scanf("%d", &arr[i]);
24     scanf("%d", &x);
25
26     int a, b;
27     if (findPair(arr, 0, n - 1, x, &a, &b)) {
28         printf("%d\n", a);
29         printf("%d\n", b);
30     } else {
31         printf("No\n");
32     }
33     return 0;
34 }
```

	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.

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