



Dashboard My courses

CS23331-DAA-2024-CSE / 4-Two Elements sum to x



## 4-Two Elements sum to x

Started on	Wednesday, 17 September 2025, 8:51 AM
State	Finished
Completed on	Wednesday, 17 September 2025, 8:56 AM
Time taken	4 mins 19 secs
Marks	1.00/1.00
Grade	<b>10.00</b> out of 10.00 ( <b>100</b> %)

Question 1 | Correct Mark 1.00 out of 1.00 | Flag question

## **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  $\boldsymbol{n}$  – Size of array

Next n lines Contains n numbers – Elements of an array

Last Line Contains Integer x – Sum Value

Output Format

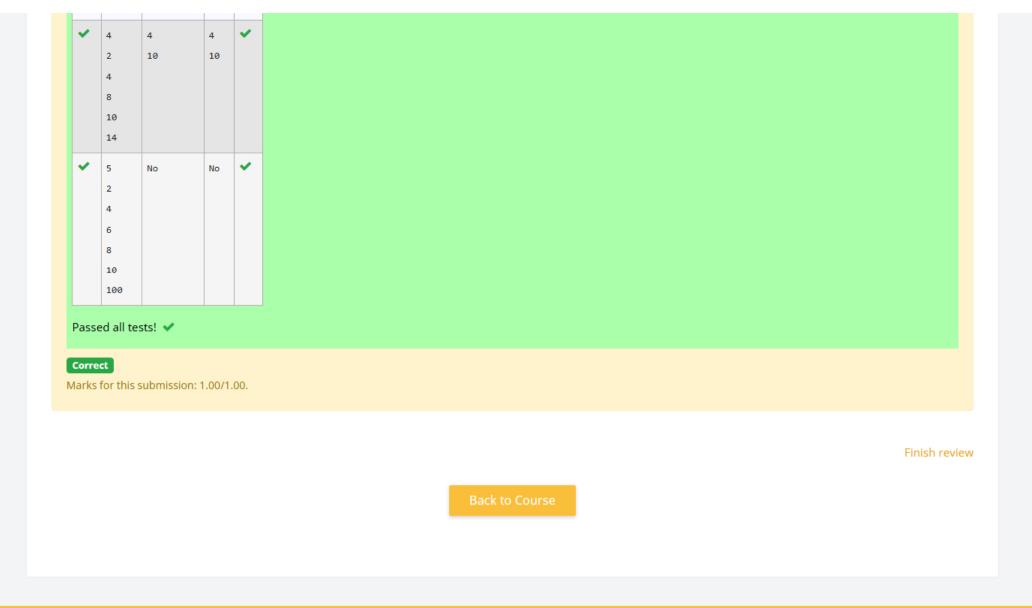
Output Format

First Line Contains Integer - Element1

Second Line Contains Integer - Element 2 (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* a, int* b) {
3
        if (left >= right)
4
           return 0;
 5
6
       int sum = arr[left] + arr[right];
7
        if (sum == x) {
8
9
            *a = arr[left];
10
            *b = arr[right];
11
           return 1;
12
        } else if (sum < x) {
           return findPair(arr, left + 1, right, x, a, b);
13
14
        } else {
15
            return findPair(arr, left, right - 1, x, a, b);
16
17
18
19 v int main() {
20
        int n, x;
21
        scanf("%d", &n);
22
23
        int arr[n];
24
        for (int i = 0; i < n; i++) {
           scanf("%d", &arr[i]);
25
26
27
        scanf("%d", &x);
28
29
        int a, b;
30
        if (findPair(arr, 0, n - 1, x, &a, &b)) {
31
            printf("%d\n%d\n", a, b);
32
        } else {
33
            printf("No\n");
34
35
36
        return 0;
37 }
```



Data retention summary