

CS23331-DAA-2024-CSE / 4-Print Intersection of 2 sorted arrays- $O(m+n)$ Time Complexity, $O(1)$  Space Complexity


## 4-Print Intersection of 2 sorted arrays- $O(m+n)$ Time Complexity, $O(1)$ Space Complexity

Started on	Thursday, 20 November 2025, 9:57 PM
State	Finished
Completed on	Thursday, 20 November 2025, 9:57 PM
Time taken	33 secs
Marks	1.00/1.00
Grade	30.00 out of 30.00 (100%)

**Question 1** | Correct Mark 1.00 out of 1.00 [Flag question](#)

Find the intersection of two sorted arrays.

OR in other words,

Given 2 sorted arrays, find all the elements which occur in both the arrays.

Input Format

- The first line contains T, the number of test cases. Following T lines contain:
  1. Line 1 contains N1, followed by N1 integers of the first array
  2. Line 2 contains N2, followed by N2 integers of the second array

Output Format

The intersection of the arrays in a single line

Example

Input:

1

3 10 17 57

6 2 7 10 15 57 246

Output:

10 57

Input:

1

6 1 2 3 4 5 6

2 1 6

Output:

1 6

For example:

Input	Result
1	10 57
3 10 17 57	
6	
2 7 10 15 57 246	

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2
3 int main() {
4     int T;
5     scanf("%d", &T);
6
7     while (T--) {
8         int n1, n2;
9
10        scanf("%d", &n1);
11        int a[n1];
12        for (int i = 0; i < n1; i++) {
13            scanf("%d", &a[i]);
14        }
15
16
17        scanf("%d", &n2);
18        int b[n2];
19        for (int i = 0; i < n2; i++) {
20            scanf("%d", &b[i]);
```

```

20     scanf("%d", &b[j]);
21 }
22
23
24     int i = 0, j = 0;
25     while (i < n1 && j < n2) {
26         if (a[i] == b[j]) {
27             printf("%d ", a[i]);
28             i++;
29             j++;
30         }
31         else if (a[i] < b[j]) {
32             i++;
33         }
34         else {
35             j++;
36         }
37     }
38     printf("\n");
39 }
40
41     return 0;
42 }

```

	Input	Expected	Got	
✓	1 3 10 17 57 6 2 7 10 15 57 246	10 57	10 57	✓
✓	1 6 1 2 3 4 5 6 2 1 6	1 6	1 6	✓

Passed all tests! ✓

**Correct**

Marks for this submission: 1.00/1.00.

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