

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	Wednesday, 5 November 2025, 6:54 AM
State	Finished
Completed on	Wednesday, 5 November 2025, 6:55 AM
Time taken	43 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:

- Line 1 contains  $N_1$ , followed by  $N_1$  integers of the first array
- Line 2 contains  $N_2$ , followed by  $N_2$  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     while (T--) {
7         int n1, n2;
8         scanf("%d", &n1);
9         int a[n1];
10        for (int i = 0; i < n1; i++)
11            scanf("%d", &a[i]);
12
13        scanf("%d", &n2);
14        int b[n2];
15        for (int i = 0; i < n2; i++)
16            scanf("%d", &b[i]);
17
18        int i = 0, j = 0, found = 0;
19        while (i < n1 && j < n2) {
20            if (a[i] == b[j]) {
21                printf("%d ", a[i]);
22                found = 1;
23                i++;
```

```

24         j++;
25     } else if (a[i] < b[j]) {
26         i++;
27     } else {
28         j++;
29     }
30 }
31 if (found)
32     printf("\n");
33 else
34     printf("No Intersection\n");
35 }
36 return 0;
37 }
38

```

	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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