

CS233331-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	Sunday, 12 October 2025, 7:10 PM
State	Finished
Completed on	Sunday, 12 October 2025, 7:11 PM
Time taken	1 min 7 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         scanf("%d", &N1);
10        int arr1[N1];
11        for (int i = 0; i < N1; i++) scanf("%d", &arr1[i]);
12
13        scanf("%d", &N2);
14        int arr2[N2];
15        for (int i = 0; i < N2; i++) scanf("%d", &arr2[i]);
16
17        int i = 0, j = 0;
18        int first = 1;
19
20        while (i < N1 && j < N2) {
```

```

20 while (i < n1 && j < n2) {
21     if (arr1[i] == arr2[j]) {
22         if (!first) printf(" ");
23         printf("%d", arr1[i]);
24         first = 0;
25         i++; j++;
26     } else if (arr1[i] < arr2[j]) {
27         i++;
28     } else {
29         j++;
30     }
31 }
32 printf("\n");
33 }
34
35 return 0;
36 }
37

```

	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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