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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

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 N1, followed by N1 integers of the first array
  - 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        scanf("%d", &n2);  
17        int b[n2];  
18        for (int i = 0; i < n2; i++) {  
19            scanf("%d", &b[i]);  
20        }
```

```
20     scanf("%d", &a[1]);
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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Data retention summary