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Started on	Tuesday, 19 November 2024, 10:07 PM
State	Finished
Completed on	Tuesday, 19 November 2024, 10:12 PM
Time taken	4 mins 57 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:

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 3 10 17 57 6 2 7 10 15 57 246	10 57

Answer: (penalty regime: 0 %)

```
1 #include <stdio.h>
2
3 void find_intersection(int arr1[], int n1, int arr2[], int n2) {
4     int i = 0, j = 0;
5
6     // Traverse both arrays
7     while (i < n1 && j < n2) {
8         if (arr1[i] < arr2[j]) {
9             i++;
10        } else if (arr1[i] > arr2[j]) {
11            j++;
12        } else {
13            printf("%d ", arr1[i]);
14            i++;
15            j++;
16        }
17    }
18 }
```

```
16     }
17 }
18 }
19
20 int main() {
21     int t;
22     scanf("%d", &t);
23
24     while (t--) {
25         int n1, n2;
26         scanf("%d", &n1);
27         int arr1[n1];
28         for (int i = 0; i < n1; i++) {
29             scanf("%d", &arr1[i]);
30         }
31         scanf("%d", &n2);
32         int arr2[n2];
33         for (int i = 0; i < n2; i++) {
34             scanf("%d", &arr2[i]);
35         }
36         find_intersection(arr1, n1, arr2, n2);
37         printf("\n");
38     }
39
40     return 0;
41 }
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.

◀ 3-Print Intersection of 2 sorted arrays-O(m*n)Time Complexity,O(1) Space Complexity

Jump to...

5-Pair with Difference-O(n^2)Time Complexity,O(1) Space Complexity ▶