

[Dashb...](#) / [My cou...](#) / [CS23331-DAA-202...](#) / [Competitive Progra...](#) / [4-Print Intersection of 2 sorted arrays- \$O\(m+n\)\$ Time Complexity, \$O\(1\)\$ S...](#)

Started on	Tuesday, 5 November 2024, 2:00 PM
State	Finished
Completed on	Tuesday, 5 November 2024, 2:03 PM
Time taken	3 mins 28 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 void find_intersection(int arr1[], int n1, int arr2[], int n2) {
3     int i = 0, j = 0;
4     while (i < n1 && j < n2) {
5         if (arr1[i] == arr2[j]) {
6             printf("%d ", arr1[i]);
7             i++;
8             j++;
9         } else if (arr1[i] < arr2[j]) {
10            i++;
11        } else {
12            j++;
13        }
14    }
15    printf("\n");
16 }
17 int main() {
18     int T;
19     scanf("%d", &T);
20     while (T--) {
21         int N1;
22         scanf("%d", &N1);
23         int arr1[N1];
```

```
23     int arr1[N1];
24     for (int i = 0; i < N1; i++) {
25         scanf("%d", &arr1[i]);
26     }
27     int N2;
28     scanf("%d", &N2);
29     int arr2[N2];
30     for (int i = 0; i < N2; i++) {
31         scanf("%d", &arr2[i]);
32     }
33     find_intersection(arr1, N1, arr2, N2);
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.



◀ 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 ▶