

Started on	Friday, 25 October 2024, 2:10 PM
State	Finished
Completed on	Friday, 25 October 2024, 2:44 PM
Time taken	34 mins 5 secs
Marks	1.00/1.00
Grade	30.00 out of 30.00 (100%)

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 int main() {
3     int T;
4     scanf("%d", &T);
5     while (T--) {
6         int n1,n2;
7         scanf("%d", &n1);
8         int arr1[n1];
9         for (int i=0;i<n1;i++) {
10             scanf("%d",&arr1[i]);
11         }
12         scanf("%d",&n2);
13         int arr2[n2];
14         for (int i=0;i<n2;i++) {
15             scanf("%d",&arr2[i]);
16         }
17         int i=0,j=0;
18         while (i<n1 && j<n2) {
19             if (arr1[i]==arr2[j]) {
20                 printf("%d ",arr1[i]);
21                 i++;
22                 j++;
23             } else if (arr1[i]<arr2[j]) {
24                 i++;
25             } else {
26                 j++;
27             }
28         }
29     }
30 }
```

```
27 ..... }
28 ..... }
29 ..... }
30 ..... }
```

	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.

◀ 2-Finding Duplicates- $O(n)$  Time Complexity, $O(1)$  Space Complexity

Jump to...

4-Print Intersection of 2 sorted arrays- $O(m+n)$ Time Complexity, $O(1)$  Space Complexity ▶