

Started on	Sunday, 10 November 2024, 7:04 PM
State	Finished
Completed on	Sunday, 10 November 2024, 7:25 PM
Time taken	21 mins 13 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
3  int main() {
4      int T;
5      scanf("%d", &T);
6      while (T--) {
7          int n1;
8          scanf("%d", &n1);
9          int arr1[n1];
10         for (int i = 0; i < n1; i++) {
11             scanf("%d", &arr1[i]);
12         }
13         int n2;
14         scanf("%d", &n2);
15         int arr2[n2];
16         for (int i = 0; i < n2; i++) {
17             scanf("%d", &arr2[i]);
18         }
19         int i = 0, j = 0;
20         while (i < n1 && j < n2) {
21             if (arr1[i] == arr2[j]) {
22                 printf("%d ", arr1[i]);
23                 i++;
24                 j++;
25             } else if (arr1[i] < arr2[j]) {
26                 i++;
27             } else {

```

```
27 } else {
28     j++;
29 }
30 }
31 printf("\n");
32 }
33 return 0;
34 }
35
```

	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- $O(m \cdot n)$ Time Complexity, $O(1)$
Space Complexity

Jump to...

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