

[Dashb...](#) / [My cou...](#) / [CS23331-DAA-202...](#) / [Competitive Progra...](#) / [3-Print Intersection of 2 sorted arrays- \$O\(m \cdot n\)\$  Time Complexity,  \$O\(1\)\$  Sp...](#)

<b>Started on</b>	Tuesday, 5 November 2024, 1:47 PM
<b>State</b>	Finished
<b>Completed on</b>	Tuesday, 5 November 2024, 2:22 PM
<b>Time taken</b>	35 mins 23 secs
<b>Marks</b>	1.00/1.00
<b>Grade</b>	<b>30.00</b> out of 30.00 ( <b>100%</b> )

## 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;
4     int j=0;
5     while(i<n1 && j<n2){
6         if(arr1[i]<arr2[j]){
7             i++;
8         }
9         else if(arr1[i]>arr2[j]){
10            j++;
11        }
12        else{
13            printf("%d ",arr1[i]);
14            i++;
15        }
16    }
```

```
16         j++;
17     }
18 }
19 }
20 }
21 int main(){
22     int T;
23     scanf("%d",&T);
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     }
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.

◀ 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 ▶