

[Dashbo...](#) / [My cour...](#) / [CS23331-DAA-2023-...](#) / [Competitive Programm...](#) / [4-Print Intersection of 2 sorted arrays- \$O\(m+n\)\$ Time Complexity, \$O\(1\)\$  Space Com...](#)

<b>Started on</b>	Tuesday, 19 November 2024, 1:40 AM
<b>State</b>	Finished
<b>Completed on</b>	Tuesday, 19 November 2024, 3:40 AM
<b>Time taken</b>	2 hours
<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:

- Line 1 contains N1, followed by N1 integers of the first array
- 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 intersection(int arr1[],int n1,int arr2[],int n2)
4 {
5     int i=0,j=0;
6     while(i<n1&& j<n2)
7     {
8         if(arr1[i]==arr2[j])
9         {
10             printf("%d ",arr1[i]);
11             i++;
12             j++;
13         }
14         else if(arr1[i]<arr2[j])
15         {
16             i++;
17         }
18         else
19         {
20             j++;
21         }
22     }
23     return 0;
24 }
```

```
25
26 int main()
27 {
28     int t;
29     scanf("%d",&t);
30     while(t--)
31     {
32         int n1;
33         scanf("%d",&n1);
34         int arr1[n1];
35         for(int i=0;i<n1;i++)
36         {
37             scanf("%d",&arr1[i]);
38         }
39         int n2;
40         scanf("%d",&n2);
41         int arr2[n2];
42         for(int i=0;i<n2;i++)
43         {
44             scanf("%d",&arr2[i]);
45         }
46         intersection(arr1,n1,arr2,n2);
47     }
48     return 0;
49 }
50
51
52 }
```

	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

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