

[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	Saturday, 9 November 2024, 11:14 AM
State	Finished
Completed on	Saturday, 9 November 2024, 11:19 AM
Time taken	4 mins 33 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:

- 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 main(){
4     int t;
5     scanf("%d",&t);
6     while(t){
7         int n1;
8         scanf("%d",&n1);
9         int arr[n1];
10        for(int i=0 ; i<n1 ; i++)
11            scanf("%d",&arr[i]);
12
13        int n2;
14        scanf("%d",&n2);
15        int brr[n2];
16        for(int i=0 ; i<n2 ; i++)
17            scanf("%d",&brr[i]);
18
19        int i=0, j=0;
20        while(i<n1 && j<n2){
21            if(arr[i] < brr[j])
22                i++;
23            else if(arr[i] > brr[j])
24                j++;
25            else
26                printf("%d ",arr[i]);
27                i++;
28        }
29        printf("\n");
30        t--;
31    }
32    }
```

```
23         else if(arr[i] > arr[j])
24             j++;
25     else{
26         printf("%d ",arr[i]);
27         i++, j++;
28     }
29 }
30 t--;
31 }
32 }
```

	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 ▶