

[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	Sunday, 10 November 2024, 7:42 PM
State	Finished
Completed on	Sunday, 10 November 2024, 7:52 PM
Time taken	9 mins 26 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:

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 a1[n1];
9         for(int i=0;i<n1;i++){
10             scanf("%d",&a1[i]);
11         }
12         scanf("%d",&n2);
13         int a2[n2];
14         for(int i=0;i<n2;i++){
15             scanf("%d",&a2[i]);
16         }
17         int i=0;
18         int j=0;
19         while(i<n1){
20             if(a1[i]>a2[j]){
21                 j++;
22             }
23             else if(a1[i]<a2[j]){
24                 i++;
25             }
26             else{
27                 printf("%d ",a1[i]);
28                 i++;
29                 j++;
30             }
31         }
32         printf("\n");
33     }
34 }
```

```
23     else if(a1[i]<a2[j]){
24         i++;
25     }
26     else{
27         printf("%d ",a1[i]);
28         i++;
29         j++;
30     }
31 }
32 }
33 }
34 }
```

	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 ▶