

4-Print Intersection of 2 sorted arrays-O(m+n)Time Complexity,O(1) Space Complexity

| | |
|--------------|----------------------------------|
| Started on | Friday, 24 October 2025, 2:30 PM |
| State | Finished |
| Completed on | Friday, 24 October 2025, 2:35 PM |
| Time taken | 4 mins 49 secs |
| Marks | 1.00/1.00 |
| Grade | 30.00 out of 30.00 (100%) |

Question 1 | [Correct](#) Mark 1.00 out of 1.00 [Flag question](#)

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
7     while (T--) {
8         int n1, n2;
9         scanf("%d", &n1);
10        int arr1[n1];
11        for (int i = 0; i < n1; i++)
12            scanf("%d", &arr1[i]);
13
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            }
26            else if (arr1[i] < arr2[j]) {
27                i++;
28            }
29            else {
30                j++;
31            }
32        }
33        printf("\n");
34    }
35}
```

```
28
29
30
31
32
33
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35
36
37
38
```

```
        else {
            j++;
        }
    }
    printf("\n");
}

return 0;
}
```

| | 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.

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