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	Tuesday, 19 November 2024, 6:58 PM
State	Finished
Completed on	Tuesday, 19 November 2024, 7:06 PM
Time taken	8 mins 20 secs
Marks	1.00/1.00
Grade	**30.00** out of 30.00 (**100**%)

Dashb...   /   My cou...   /   CS23331-DAA-202...   /   Competitive Progra...   /   4-Print Intersection of 2 sorted arrays-O(m+n)Time Complexity,O(1) S...

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
 6 ▾    while (T--) {
 7          int n1, n2;
 8          scanf("%d", &n1);
 9          int arr1[n1];
10 ▾        for (int i = 0; i < n1; i++) {
11              scanf("%d", &arr1[i]);
12          }
13
14
15          scanf("%d", &n2);
16          int arr2[n2];
17 ▾        for (int i = 0; i < n2; i++) {
18              scanf("%d", &arr2[i]);
19          }
20          int i = 0, j = 0;
21
22
23          while (i < n1 && j < n2) {
```

```
23 ▾        while (i < n1 && j < n2) {
24 ▾            if (arr1[i] == arr2[j]) {
25                 printf("%d ", arr1[i]);
26                 i++;
27                 j++;
28             }
29 ▾            else if (arr1[i] < arr2[j]) {
30                 i++;
31             }
32 ▾            else {
33                 j++;
34             }
35         }
36     }
37 }
38
```

	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 ►