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	Monday, 18 November 2024, 7:45 PM
State	Finished
Completed on	Monday, 18 November 2024, 7:47 PM
Time taken	1 min 59 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 arr1[N1];
9          for (int i = 0; i < N1; i++) {
10             scanf("%d", &arr1[i]);
11         }
12         scanf("%d", &N2);
13         int arr2[N2];
14         for (int i = 0; i < N2; i++) {
15             scanf("%d", &arr2[i]);
```

```
16              }
17              int i = 0, j = 0;
18              int found = 0;
19              while (i < N1 && j < N2) {
20                  if (arr1[i] == arr2[j]) {
21                      if (found == 0) {
22                          found = 1;
23                      }
24                      printf("%d ", arr1[i]);
25                      i++;
26                      j++;
27                  } else if (arr1[i] < arr2[j]) {
28                      i++;
29                  } else {
30                      j++;
31                  }
32              }
33              if (found == 0) {
34                  printf("\n");
35              } else {
36                  printf("\n");
37              }
38          }
39          return 0;
40      }
```

	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 ►