Dashb... / My cou... / CS23331-DAA-202... / Competitive Progra... / 3-Print Intersection of 2 sorted arrays-O(m*n)Time Complexity,O(1) Sp...

Started on	Tuesday, 19 November 2024, 10:05 PM
State	Finished
Completed on	Tuesday, 19 November 2024, 10:07 PM
Time taken	1 min 23 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 %)

```c
#include<stdio.h>

int intersection(int arr1[],int n1,int arr2[],int n2)
{
    int i=0,j=0;
    while(i<n1&&j<n2)
    {
        if(arr1[i]==arr2[j])
        {
            printf("%d ",arr1[i]);
            i++;
            j++;
        }
        else if(arr1[i]<arr2[j])
        {
           i++;
        }
        else
        {
            j++;
        }
    }
    return 0;
    return 0;
}

int main()
{
    int t;
    scanf("%d",&t);
    while(t--)
    {
        int n1;
        scanf("%d",&n1);
        int arr1[n1];
        for(int i=0;i<n1;i++)
        {
        scanf("%d",&arr1[i]);

        }
        int n2;
        scanf("%d",&n2);
        int arr2[n2];
        for(int i=0;i<n2;i++)
        {
        scanf("%d",&arr2[i]);

        }
        intersection(arr1,n1,arr2,n2);

    }
    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.

◄ 2-Finding Duplicates-O(n) Time Complexity,O(1) Space Complexity

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