CS23331-Design and Analysis of Algorithms-2023 Batch-CS

Quiz navigation

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Finish review

Status	Finished
Started	Tuesday, 22 April 2025, 3:14 PM
Completed	Tuesday, 22 April 2025, 3:32 PM
Duration	18 mins 25 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:

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 main() {
    int k;
    scanf("%d", &k);
    for (int x = 0; x < k; x++) {
        int m, n;
        scanf("%d", &m);
        int a[m];
        for (int i = 0; i < m; i++) {
            scanf("%d", &a[i]);
        }
        scanf("%d", &n);
        int b[n];
        for (int i = 0; i < n; i++) {
            scanf("%d", &b[i]);
        }
        int p = 0, q = 0;
        while (p < m && q < n) {
            if (a[p] < b[q])
                p++;
            else if (a[p] > b[q])
                q++;
            else {
                printf("%d ", a[p]);
                p++;
                q++;
            }
        }
    }
    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.

Finish review

◄ 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 ►