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Set Operations AZ101

? Ask Doubt

Time-Limit: 1 sec Score: 100.00/100 Difficulty :

Memory: 256 MB Accepted Submissions: 100

Description

You are given two sets, A and B of N and M integers respectively. There are no duplicate integers in each respective array. Find the set union, set intersection and set difference (A-B) of the two sets in sorted order.

Input Format

The first line of the input contains one integer T - the number of test cases. Then T test cases follow.

The first line of each test case contains two space-separated integers N, M - the length of the sets.

The second line of each test case contains N space-separated integers.

The third line of each test case contains M space-separated integers.

Output Format

For each test case, print the set union, set intersection and set difference (A-B) of the two sets in sorted order, each on a separate line.

Constraints

$1 \le T \le 10^5$

$1 \le N, M \le 10^4$

$1 \le A_i, B_i \le 10^9$

It is guaranteed that the sum of N and the sum of M over all test cases does not exceed 2*10^5.

Sample Input 1

Copy

```
3
4 5
2 4 1 5
4 5 6 9 3
2 3
4 5
6 7 1
3 3
1 2 3
1 2 3
```

C++14[GCC]

Submit

```
1
```