2520 - Anime

Description

Pavel is quite busy in the last few weeks. He took on a new job, which has left him no time for his favorite activity: watching Naruto (a Japanese animation series). As he does not have any free time, he asks his friend Jayme to record the episodes he would be missing in the next few weeks. Pavel also asks him to ignore the filler episodes (those that are not part of the main story).

As always, Jayme is very disorganized and he forgets to record all episodes. He also records episodes that are fillers or Pavel has already watched. Given the lists of episodes he has recorded and the lists of filler episodes help Jayme figure out which episodes he needs to record and which he needs to delete.

Input specification

First line of input contains the number of test cases T (T <= 20) to follow. Each test case has three lines.

First line of test case has four integers: N (1 <= N <= 500), P, (0 <= P <= N), J (0 <= J <= N), and F (0 <= F <= N). N is the number of episodes (so far) in the Naruto series. Episodes are numbered sequentially 1 to N. Pavel has watched episodes from 1 to P. If P = 0, Pavel has not watched any episode. J is the number of episodes Jayme has recorded. F is the number of filler episodes in the Naruto series. Second line of test case has J distinct integers from 1 to N. These are the IDs of the episodes that Jayme has recorded. Third line of test case has F distinct integers from 1 to N. These are the filler episodes IDs.

Output specification

For each test case, output two lines: first line has the number of (non-filler) episodes that Jayme failed to record, followed by the list of missing episode numbers. Likewise, second line has the number episodes Jayme has recorded and must delete (either because they are fillers or because Pavel has already watched those episodes), followed by the list of episode numbers to delete. All these integers must be separated by a single space from each other. The lists of episode numbers must be output in ascending order.

Sample input

```
2
10 3 4 2
```

```
9 2 7 6
5 7
7 5 0 1

7
```

Sample output

```
3 4 8 10
2 2 7
1 6
0
```

Hint(s)

Source	Carlos Joa Fong
Added by	**ymondelo20**
Addition date	2013-09-25
Time limit (ms)	5000
Test limit (ms)	1000
Memory limit (kb)	256000
Output limit (mb)	64
Size limit (bytes)	15000
Enabled languages	Bash C C# C++ Java Pascal Perl PHP Python Ruby Text