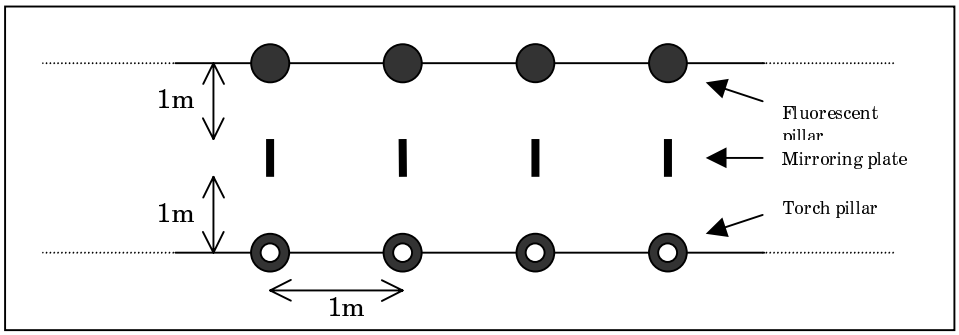
Problem H : Hall of Flames

inputfile: input.H
outputfile: output.H

Description

Recent archaeological work has exposed an artefact that could well be the largest piece of art from Roman history ever found. It is a large gallery formed by 100 pillars at each side, one meter apart. The gallery itself has a width of 3 meters. Although the ravages of time have demolished quite a bit, the site clearly shows that the pillars on one side were equipped with a torch, where the pillars on the other side were painted with a fluorescent paint (another discovery: such a paint was never found before).
In the middle between two pillars at either side, some kind of metal plate (width: 1 meter) with high mirroring capacity was attached. This is a schematic drawing of the artefact:



Problem

The researchers think that the artefact played a role in the evening spectacles of the old Romans. By lighting or extinguishing torches and removing mirrors, the appearance of the fluorescent pillars could be changed. Although the artefact is in such a state that a lot of research could be done, the effect cannot be shown anymore. That is where you come in. You should write a program that, given the places of torches that are lit and the places of mirrors that are present, prints out those places of fluorescent pillars that will not get illuminated, either directly by a torch, or indirectly through mirrors. The places are numbered from left to right starting from *1*.
The researchers found out that a mirroring plate mirrors on both sides, but the endpoints absorb the light (this also means that the light from the flame directly opposite to the mirror is absorbed). The dimensions allow for considering the pillars (& torches) and mirrors as points and lines in an integer grid. A pillar will light up when it is hit by any intensity of light.

Input

The input file starts with the number of cases. Each case exist of:

- A line with the number of lit torches T $(0 \le T \le 100)$
- A line with the places of lit torches
- A line with the number of present mirrors M $(0 \le M \le 100)$
- A line with the places of the present mirrors

Output

Per case, the output file should contain one line with the places of pillars that **don't** get illuminated, either directly or indirectly. These numbers should be presented in ascending order, separated by a single space. No trailing spaces allowed.

Example

Sample input

```
2
1
20
2
19 21
1
5
1
5
```

Correct output for the sample input

```
17 18 22 23
5
```