Manuel is a Portuguese that is vegetarian and does not like his neighbourhood very much because all his neighbours are always doing barbecues and the smoke goes into his house.

Now Manuel has decided to move and he wants to go to a new place with as few neighbours as possible. So he asked your help to write a program to determine the best place where he could live in peace without the barbecue smoke.

Input

The first line of the input is $N \leq 30$ that indicates the number of test cases. Each test case consists of a number P, where $2 \leq P \leq 1000$, that indicates the number of places where Manuel can live, each place is numbered from 1 to P. Then there will be P lines indicating the neighbours of each place, each neighbour is separated by exactly one space. Each place has at least 1 neighbour and at most $P - 1$ neighbours, because Manuel can not be a neighbour of himself. For this problem if P_1 has P_2 as his neighbour does not mean that P_2 has P_1 as his neighbour.

Each test case is separated by a blank line.

Output

For each test case you should print the place that has the minimum number of neighbours. If there are more than one you should print all places separeted by one space and ordered by the indices, the lower indices should come first.

Sample Input

```
2
3
2
1 3
2 1

4
2
3
1 4 2
2 1 3
```

Sample Output

```
1
1 2
```