

Games

Vudduu has bought various games but not sure where to start, found in the Internet to play a game you first have to pass other games.

Now all the games numbered from '1' to 'N'. He have the list of games he need to play before others. A game can be played only if all games were played prior to this.

Still do not know where to start, for this reason we need your help. He need a list of numbers representing the order in which they should play, if there are several solutions print the smaller list.

A list is less than another if there is a minor element before
eg: "2 3 1" less than "3 2 1" and "1 2 4 3 5" less than "1 2 5 3 4."

Input

The first line will have a positive integer 't' ($1 \leq t \leq 100000$) is the number of test cases.

For each test case given two integers 'n' ($1 \leq n \leq 100$) and 'm' ($0 \leq m < n$), the number of games and number of restrictions.

The following 'm' lines contain a number 'x' ($1 \leq x \leq n$) which is the number of game and a number 'k' ($0 \leq k < n$) which is the number of games to be played before playing the game 'x', then on the same line are 'k' numbers that are the games to be played before the game 'x'.

Output

For each test case print a line with the game list in the order they should play. If there are several smaller print solutions list.

Input	Output
2 4 3 1 1 2 2 1 3 3 1 4 4 3 1 1 4 2 2 1 4 3 1 4	4 3 2 1 4 1 2 3