Problem J. Just Different Rules...

Input file:	`standard input`
Output file:	`standard output`
Time limit:	2 seconds
Memory limit:	512 megabytes

There are multiple playing cards. Each card has two sides, black and white, and a rank, which is a number from 1 to n. There may be several cards of the same rank.

You're trying to solve a puzzle. In the puzzle all cards are arranged into m lanes. In one turn you can simultaneously flip all cards of a certain rank (that is, black cards become white and vice versa). If every lane contains at least one white card, you win.

Having struggled for several hours, you finally solved the puzzle... only to find out that you misinterpreted the rules: there should be *at least* one white card in every lane, and you got into a position where there is *at most* one. Disappointed, you made a series of irrelevant flips.

Can you solve the puzzle according to its original rules?

Input

In the first line of the input there are two integers n and m ($1 \le n, m \le 200\,000$), the number of ranks and lanes respectively. Next m lines describe lanes.

The description of each lane starts with integer k ($k \ge 1$), the number of cards in this lane. It is followed by k non-zero integers with absolute value at most n which describe cards. Positive integer x denotes a white card of rank x, while integer $-x$ denotes a black card of rank x.

The total number of cards in all lanes does not exceed 500 000.

It is guaranteed that there exists a sequence of flips leading to a position where each lane contains **at most** one white card. Note, however, that your program should find a position with **at least** one white card in each lane (it is not necessarily possible).

Output

If it is impossible to reach a position with at least one white card in each lane, print "`No`".

Otherwise, print "`Yes`" and integer f — the number of required flips. Then print f distinct integers between 1 and n, denoting the ranks to flip.

If there are multiple solutions, print any of them.

Examples

standard input	standard output
4 3 2 1 -2 2 -1 -3 3 1 3 4	Yes 1 3
1 2 1 1 1 -1	No

Note

In the first sample, one of the possible ways to reach the position with **at most** one white card in each lane is to flip cards of rank 1 and cards of rank 4. If you flip cards of rank 3, you reach the position with **at least** one white card in each lane.