Problem D. Cut the Cake

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	256 mebibytes

It is Marichka's k^2 -th birthday today! Zenyk bought a big cake for this occasion and now he wants to cut it.

For the sake of simplicity, consider the cake as rectangular matrix with n rows and m columns. There are exactly k^2 candles on it, each of them located in a unique cell of the matrix. Zenyk wants to cut the cake with k - 1 horizontal and k - 1 vertical cuts. (Note that he's only allowed to cut between cells.) After the cutting, each of k^2 parts must contain a single candle.

You task is to find and output any valid cutting, or indicate that it's impossible to achive the goal.

Input

The first line contains three integers n, m and k ($2 \le k \le n, m \le 200$). The following n lines contain a string of m characters each. Character '1' represents a cell with a candle on it, while '0' respresents a cell without candle.

It's guaranteed that there are exactly k^2 candles on the cake.

Output

In the first line print "YES" if it's possible to cut the cake the way Zenyk wants, otherwise print "NO".

In case of positive answer the second line must contain k-1 unique valid indices of the horizontal cuts, and the third line must contain k-1 unique valid indices of the vertical cuts. A cut between rows (or columns) i and i+1 has index i (1-based).

Examples

standard input	standard output
4 4 2	YES
1000	2
0001	3
0010	
0001	
3 4 2	NO
1110	
0000	
0100	