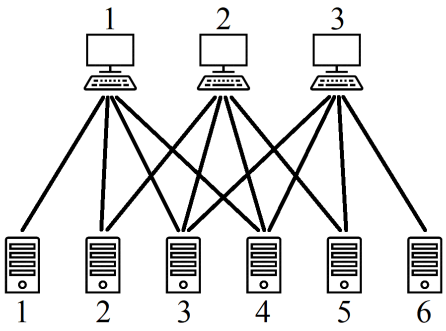
Problem H : Network Topology in Hezardastan

Hezardastan, a leading information technology group in Iran, has a huge data center containing n servers and m terminals (where $m \leqslant n$). A terminal is a pair of keyboard and monitor that can be connected to a server for administrative purposes. The servers are numbered 1 through n and the terminals are numbered 1 through m. This data center has a network topology in which not every terminal is necessarily able to connect to every server. For example, the figure below depicts 3 terminals and 6 servers where a terminal can connect to a server if a line is drawn between them.



A subset S of the servers with size m is called *manageable* if its members are allowed by the network topology to be simultaneously managed by the terminals, i.e. each terminal can be connected to a distinct server in S. For example, the subset $\{2, 3, 6\}$ in the example above is manageable as its members can be respectively managed by the terminals $\{1, 2, 3\}$. A subset of the servers is called *unmanageable* if it has size m and is not manageable. A network topology is called *totally manageable* when it causes no unmanageable subset of servers. For example, the network topology shown in the example above is totally manageable, but if the connection link between terminal 2 and server 5 is removed, then it will not be totally manageable anymore since the subsets $\{1, 5, 6\}$, $\{2, 5, 6\}$, $\{3, 5, 6\}$, and $\{4, 5, 6\}$ will become unmanageable. Given a network topology for the data center, you have to find if it is totally manageable or it makes an unmanageable subset.

Input

The first line of input contains two integers m and n separated with a single space ($1 \leqslant m \leqslant 150$, $1 \leqslant n \leqslant 400$, $m \leqslant n$). The next m lines describe the network topology by an $m \times n$ matrix. Each of these lines contains n space-separated integers which are either 0 or 1. The j-th number (for $1 \leqslant j \leqslant n$) in the $(1+i)$-th line of input (for $1 \leqslant i \leqslant m$) is 1 if terminal i can connect to server j, and it is 0 otherwise.

Output

If the given network topology is totally manageable, you only have to print `1` in the first line of output. Otherwise, you should print `0` in the first line of output and an unmanageable subset of servers in the second line in the form of m space-separated integers (indicating the server numbers, in any arbitrary order). If there are multiple unmanageable subsets, you can print any one of them.

Example

Standard Input	Standard Output
3 6 1 1 1 1 0 0 0 1 1 1 1 0 0 0 1 1 1 1	1

Standard Input	Standard Output
3 6 1 1 1 1 0 0 0 1 1 1 0 0 0 0 1 1 1 1	0 1 5 6