

## Train Schedule

In a train schedule, the route of trains is described by a sequence of bits (1 – if the train stops at a station, 0 – if not).

Write a program that gives the sequence of bits in which only those bits are 1 where all the trains stop.



### Input

The first line of the standard input contains the count of trains ( $1 \leq T \leq 100$ ) and the count of stations ( $1 \leq S \leq 100$ ). The next  $T$  lines contain the sequences representing the routes of each train:  $S$  bits separated by spaces, where 1 means the train (row) stops at the given station (column), and 0 means the train does not stop.

### Output

The first line of the standard output should contain a sequence of  $S$  bits separated by spaces, where 1 means all the trains stop, 0 means not all the trains stop.

### Example

*Input*

```
6 8
1 1 1 1 1 1 0 1
1 0 0 0 1 1 0 1
1 0 0 0 1 0 0 0
1 1 1 0 1 0 0 0
1 1 0 1 1 0 0 1
1 1 1 0 1 0 0 1
```

*Output*

```
1 0 0 0 1 0 0 0
```