Fishing competition - amount of fish

We have the results of a fishing competition in a matrix: $M(i, j)$ means that fisher i caught $M(i, j)$ pieces of fish type j.

Write a program that calculates how much the fishers caught of each type of fish.

Input

The first line of the *standard input* contains the count of fishers ($1 \leq N \leq 100$) and the count of fish types ($1 \leq K \leq 100$). The next N lines each contain the amount of fish a fisher caught of each fish type, so K values separated by spaces (integers between 1 and 1000).

Output

The first line of the *standard output* should contain how much fish was caught in total of each type in the input order of fish types.

Example

```
Input                          Output

3 4                            9  3  4  6
2 1 0 4
3 2 4 1
4 0 0 1
```

Limits

Time limit: 0.1 second

Memory limit:

32