

Problem Statement

You are given data in a tabular format i.e. the data contains N rows and each row contains M space-separated elements.

You can imagine the M items to be different attributes (like height, weight, energy, etc) and each of the N rows as an instance or a sample.

Your task is to sort the table on the K th attribute and print the final resulting table.

[If two attributes are the same for different rows, print the row that appeared first in the input]

Input Format First line contains N and M separated by a space.

Next N lines contain M elements each.

The last line contains K .

Constraints

$1 \leq N, M \leq 1000$

$1 \leq K < M$

each element ≤ 1000

Output Format

Print the N lines of the sorted table, each line has space-separated elements. Check the sample below for clarity.

Sample Input

```
5 3
10 2 5
7 1 0
9 9 9
1 23 12
6 5 9
1
```

Sample Output

```
7 1 0
10 2 5
6 5 9
9 9 9
1 23 12
```

Explanation

The table is sorted on 1^{st} attribute (*0-indexed*).