Problem 4

You are trying to write a program which does similar job as function ls(1). This function receives a sequence of strings and prints them to console. Strings are written exclusively in English alphabet and should be printed in alphabetical order and in suitable size for console viewing in as few lines as possible.

The string itself should not be changed and a single string must be printed on the same line. Each string can be sorted through standard function such as strcmp(). The screen size(width) should not be changed while the program is being executed.

Strings should be sorted in sequence by arranging the same column first, moving to the next column and finally printed out in sequence. Each column should start from the identical location and is differentiated by 2 underscores ('_') from the longest string in the previous column.
However, the first column should begin from the first position in the screen. Screen size cannot be smaller than the length of the individual string.

[Input]
Receive input from the string to be sorted from standard input.
An integer expressing screen width W(1<= W <= 100) and number of string C(1<= C <= 100) will be given to the first line of input. Afterwards, the C number of string will be given, one string in each line.

[Output]
To print a string, send it to standard output by line through function such as printf() and it will be printed one line at a time sequentially. It is not possible to modify content and reprint lines which have already been printed.
If there are still spaces after printing all strings of each line, fill the spaces with underscores('_') to fill the screen size.

[I/O Example 1]

Input

```
20 4
abc
```

```
def
ghi
jkl
```

Output

```
abc__def__ghi__jkl__
```

[I/O Example 2]

Input

```
10 4
def
ghi
abc
jkl
```

Output

```
abc__ghi__
def__jkl__
```

[I/O Example 3]

Input

```
30 9
bcdefg
mnopq
hhhh
ijkl
rst
xyz
uv
a
w
```

Output

```
a_______hhhh__mnopq__uv__xyz__
bcdefg__ijkl__rst____w________
```