

# Mosaic

Input file:            **standard input**  
Output file:           **standard output**  
Time limit:            2 seconds  
Memory limit:         256 megabytes

Artists can create their works in many unusual ways, but many of them are lazy, so they ask for your help.

You need to find a “beautiful” pattern in a mosaic, where each element is colored in one of 26 colors, represented by lowercase letters of the Latin alphabet (from “a” to “z” inclusive). A “beautiful” pattern has the following characteristics:

- The elements are colored in  $K$  different colors;
- The quantity of elements of each color is unique, meaning that elements of different colors cannot appear the same number of times;
- The quantities of elements of each color form a sequence of natural numbers from 1 to  $K$ , where each number appears exactly once.

Help the artists find a “beautiful” pattern.

## Input

In the first line, there is a number  $K$  ( $2 \leq K \leq 26$ ) — the number of different colors in the “beautiful” pattern. In the second line, there are two numbers  $N, M$  ( $2 \leq N \leq 400, 2 \leq M \leq 400$ ) — the number of rows and columns in the mosaic. In each of the following  $N$  lines, there are  $M$  lowercase Latin letters representing the elements of the mosaic. It is guaranteed that a “beautiful” pattern exists.

## Output

In the first line, output  $R_1, C_1$  — the row and column of the top-left corner of the “beautiful” pattern. In the second line, output  $R_2, C_2$  — the row and column of the bottom-right corner of the “beautiful” pattern. The rows and columns of the pattern are numbered starting from one. If there are multiple answers, output any.

## Examples

standard input	standard output
2 3 4 abcz bbc ccdx	1 2 3 2
3 3 4 abcz bbc ccdx	1 1 3 2

## Note

In the first example the character “c” appears 1 time, while the character “b” appears 2 times.

<i>a</i>	<i>b</i>	<i>c</i>	<i>z</i>
<i>b</i>	<i>b</i>	<i>c</i>	<i>y</i>
<i>c</i>	<i>c</i>	<i>d</i>	<i>x</i>

In the second example the character “a” appears 1 time, while “c” and “b” appear 2 and 3 times, respectively.

<i>a</i>	<i>b</i>	<i>c</i>	<i>z</i>
<i>b</i>	<i>b</i>	<i>c</i>	<i>y</i>
<i>c</i>	<i>c</i>	<i>d</i>	<i>x</i>