

Reconstruct

Jojo has a 2D matrix with one character in each cell. He thinks that the matrix is cool, so he sends it to Lili by email. But when Lili opens the email, she only receives an array of character, she thinks this happened because all the spaces and enter are missing. She already asked Jojo but he hasn't replied yet, so she wants to reconstruct the matrix herself. Help her to reconstruct the matrix.

Format Input

The first line will be an integer T , denoting the number of test cases.

First line of each test case will contain a string.

On the next line will be two integer R and C , each will be the number of row and column of the matrix.

Format Output

For each test case print "Case #X:" on the first line. Then print the $R \times C$ matrix.

Constraints

$1 \leq T \leq 10$

$1 \leq R, C \leq 100$

The length of the string will be $R \times C$

The string only contains uppercase characters.

| Sample Input | Sample Output |
|--|--|
| 2 QWERTYUIOPASDFG 3 5 ASDFGH 3 2 | Case #1: Q W E R T Y U I O P A S D F G Case #2: A S D F G H |

Note

There must be exactly one space between adjacent characters on each line.

There is no space after the last character on each line.