

Message Encryption

To encrypt messages Jil will first decide on the number of columns C to use. Then Jil will pad the message with letters chosen randomly so that they form a rectangular matrix. Finally Jil will write down the message navigating the rows from left to right and then from right to left.

The program must accept the encrypted message M as input and then extract and print the original message (along with any additional padding letters) from the encrypted one based on the value of C .

Boundary Conditions:

Length of M is from 4 to 200.

$2 \leq C \leq 20$

Input Format:

First line will contain the string value of the encrypted message M .

Second line will contain the integer value of the column used for the encryption.

Output Format:

First line will contain the string value of the original message (along with any additional padding letters)

Sample Input/Output:**Example 1:**

Input:

midinadiazne

3

Output:

madeinindiaz

Explanation:

m i d

a n i

d i a

e n z

Here z is the padding letter. The navigating across the rows mid (left to right) ina (right to left) and so on we come up with the encrypted message midinadiazne.

Example 2:

Input:

loaesfbnaiordilertenrdhdw

5

Output:

lionroaredandthebirdsflw

Explanation:

l o a e s

i a n b f

o r d i l

n e t r e

r d h d w

Here there are no padding letters. The navigating across the rows left to right and then from right to left we get loaesfbnaiordilertenrdhdw