

rotate it

Rotate the given string starting at the given place from the end with wrapping around at the end. You are allowed to use only BrainFck!

Input

Given an integer of strictly 2 digits and a string (length ≤ 99) in the same line without space between them. You may assume that the string consists of only printable characters and that the length of string is more than the given integer.

Output

One string of the same length as input and which has same characters in different order as described by problem.

Example

Input:
04abcdefgh

Output:
efghabcd