A. k-String

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

A string is called a k-string if it can be represented as k concatenated copies of some string. For example, the string "`aabaabaabaab`" is at the same time a 1-string, a 2-string and a 4-string, but it is not a 3-string, a 5-string, or a 6-string and so on. Obviously any string is a 1-string.

You are given a string s, consisting of lowercase English letters and a positive integer k. Your task is to reorder the letters in the string s in such a way that the resulting string is a k-string.

Input

The first input line contains integer k ($1 \le k \le 1000$). The second line contains s, all characters in s are lowercase English letters. The string length s satisfies the inequality $1 \le |s| \le 1000$, where $|s|$ is the length of string s.

Output

Rearrange the letters in string s in such a way that the result is a k-string. Print the result on a single output line. If there are multiple solutions, print any of them.

If the solution doesn't exist, print "`-1`" (without quotes).

Examples

input
2 aazz
output
azaz

input
3 abcabcabz
output
-1