

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 ($1 \leq k \leq 1000$). The second line contains s , all characters in s are lowercase English letters. The string length s satisfies the inequality $1 \leq |s| \leq 1000$, 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	Copy
2 aazz	
output	Copy
azaz	

input	Copy
3 abcabcbaz	
output	Copy
-1	