

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
2 aazz
output
azaz
input
3 abcbcabz
output
-1

→ Attention

Package for this problem was not updated by the problem writer or Codeforces administration after we've upgraded the judging servers. To adjust the time limit constraint, solution execution time will be multiplied by 2. For example, if your solution works for 400 ms on judging servers, then value 800 ms will be displayed and used to determine the verdict.

Codeforces Round #135 (Div. 2)

Finished

→ Virtual participation

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Start virtual contest

→ Problem tags

implementation strings

No tag edit access

→ Contest materials

- Announcement 
- Tutorial 