# KString

SEASON 2021/2022 – FORTH ROUND

A string is called **K**-symmetrical if it can be represented as **K** concatenated copies of another string. For example, the string `"abababab"` is simultaneously **1**-symmetrical (1 × `"abababab"`), **2**-symmetrical (2 × `"abab"`) and **4**-symmetrical (4 × `"ab"`), but not **3**-symmetrical or **6**-symmetrical. Obviously every string is **1**-symmetrical.

You're given a string **S**, consisting of lowercase latin letters and a natural number **K**. Your task is to rearrange the letters in the string **S** in such a way that the resulting string becomes **K**-symmetric or determine that it is impossible to do so.

### Input

On the first line of the file `kstring.in` the string **S** and the number **K** are given.

### Output

On one line in the file `kstring.out`, print the rearranged letters of **S** so that they form a **K**-symmetrical string, or **"-1"** if this is not possible. If there is more than one solution, print any of them.

### Constraints

$1 \leq |S| \leq 10^5$

$1 \leq K \leq |S|$

**Time limit: 0.2 sec.**

**Memory limit: 256 MB.**

### Sample tests

| Input (kstring.in) | Output (kstring.out) |
|---|---|
| abacbc 2 | abcabc |

| Input (kstring.in) | Output (kstring.out) |
|---|---|
| abbaba 3 | bababa |

| Input (kstring.in) | Output (kstring.out) |
|---|---|
| abccaba 2 | -1 |