

C. Two strings

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

You are given two strings a and b . You have to remove the minimum possible number of **consecutive** (standing one after another) characters from string b in such a way that it becomes a subsequence of string a . It can happen that you will not need to remove any characters at all, or maybe you will have to remove all of the characters from b and make it empty.

Subsequence of string s is any such string that can be obtained by erasing zero or more characters (**not necessarily consecutive**) from string s .

Input

The first line contains string a , and the second line — string b . Both of these strings are nonempty and consist of lowercase letters of English alphabet. The length of each string is no bigger than 10^5 characters.

Output

On the first line output a subsequence of string a , obtained from b by erasing the minimum number of consecutive characters.

If the answer consists of zero characters, output «-» (a minus sign).

Examples

input
hi bob
output
-

input
abca accepted
output
ac

input
abacaba abdcba
output
abcba

Note

In the first example strings a and b don't share any symbols, so the longest string that you can get is empty.

In the second example ac is a subsequence of a , and at the same time you can obtain it by erasing consecutive symbols $cepted$ from string b .