TWO STRINGS

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 submultiset 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.

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 submultiset of string a in **sorted** order , obtained from b. If multiple answer exists , output lexicographically smallest.

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

Example

Input:

```
abacaba
abcdcba
```

Output:

```
aabbc
```

Input:

```
abcdy
abdxybc
```

Output:

```
abcd
```

Note: Ouput is abcd not abcy since it's lexicographically smaller.