22. 10252 - Common Permutation

Time limit: 3.000 seconds

Problem G
Common Permutation
Input: standard input
Output: standard output
Time Limit: 4 seconds
Memory Limit: 32 MB

Given two strings of lowercase letters, *a* and *b*, print the longest string *x* of lowercase letters such that there is a permutation of *x* that is a subsequence of *a* and there is a permutation of *x* that is a subsequence of *b*.

Input
Input file contains several lines of input. Consecutive two lines make a set of input. That means in the input file line **1** and **2** is a set of input, line **3** and **4** is a set of input and so on. The first line of a pair contains *a* and the second contains *b*. Each string is on a separate line and consists of at most **1000** lowercase letters.

Output
For each set of input, output a line containing *x*. If several *x* satisfy the criteria above, choose the first one in alphabetical order.

Sample Input:
```
pretty
women
walking
down
the
street
```

Sample Output:
```
e
nw
et
```

(World Finals Warm-up Contest, Problem Source: University of Alberta Local Contest)