Problem PERMUTATION: Common Permutation

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 $1,000$ 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 1

```
pretty
women
walking
down
the
street
```

Sample Output 1

```
e
nw
et
```