

## Problem B

### Common Permutation

Time limit: 1 second

Memory limit: 1024 megabytes

#### Problem Description

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 Format

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 Format

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
```