

C. Common Permutation

Given two strings a and b , print the longest string x of 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

The input file contains several cases, each case consisting of two consecutive lines. This means that lines 1 and 2 are a test case, lines 3 and 4 are another test case, and so on. Each line contains one string of lowercase characters, with first line of a pair denoting a and the second denoting b . Each string consists of at most 1,000 characters.

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
```