

R. Ksenia and Pan Scales

time limit per test: 1 second🕒
memory limit per test: 256 megabytes
input: standard input
output: standard output

Ksenia has ordinary pan scales and several weights of an equal mass. Ksenia has already put some weights on the scales, while other weights are untouched. Ksenia is now wondering whether it is possible to put all the remaining weights on the scales so that the scales were in equilibrium.

The scales is in equilibrium if the total sum of weights on the left pan is equal to the total sum of weights on the right pan.

Input

The first line has a non-empty sequence of characters describing the scales. In this sequence, an uppercase English letter indicates a weight, and the symbol " | " indicates the delimiter (the character occurs in the sequence exactly once). All weights that are recorded in the sequence before the delimiter are initially on the left pan of the scale. All weights that are recorded in the sequence after the delimiter are initially on the right pan of the scale.

The second line contains a non-empty sequence containing uppercase English letters. Each letter indicates a weight which is not used yet.

It is guaranteed that all the English letters in the input data are different. It is guaranteed that the input does not contain any extra characters.

Output

If you cannot put all the weights on the scales so that the scales were in equilibrium, print string "Impossible". Otherwise, print the description of the resulting scales, copy the format of the input.

If there are multiple answers, print any of them.

Examples

input	Copy
AC T L	
output	Copy
AC TL	
input	Copy
ABC XYZ	
output	Copy
XYZ ABC	
input	Copy
W T F	
output	Copy
Impossible	
input	Copy
ABC D	
output	Copy
Impossible	

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About Group



Group website

Group Contests

- Sheet #10 (General Hard)
- Sheet #9 (General medium)
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- Sheet #5 (Functions)
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- Sheet #3 (Arrays)
- Contest #2
- Sheet #2 (Loops)
- Contest #1
- Sheet #1 (Data type - Conditions)

Sheet #9 (General medium)

Finished

Practice



About Time Scaling

This contest uses time limits scaling policy (depending on a programming language). The system automatically adjusts time limits by the following multipliers for some languages. Despite scaling (adjustment), the time limit cannot be more than 30 seconds. Read the details by the [link](#).