

Identical Strings

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 256 megabytes

Meow wants to know if two words are equivalent, not in the sense that the words are spelled similarly, or that they are equal in length. Meow is looking for words or strings that has the same structure in the sense that substituting one letter for another can create the other string.

For example, the string "purryfurry" and "lannotanno" these two words are considered equivalent because once we substitute p -> l, u -> a, r -> n, y -> o, f -> t, we will get "lannotanno" from "purryfurry".

In another case, the two strings "apawlling" and "appalling" is not equivalent because 'a' in apawling will need to map into both 'a' and 'p' in appalling. Following this, the transformation is no longer a one-to-one substitution.

Input

The input contains 2 lines, containing only characters a-z (lowercase alphabets).

First line is the first word.

Second line is for the second word.

($1 \leq \text{Length of word} \leq 10^5$)

Output

If the two words given are equivalent based on the description Meow gave, display 1. If the words are not equivalent, display -1.

Examples

standard input	standard output
purryfurry lannotanno	1
clawful awful	-1
hoodini zyyxlil	1
baboon cocoon	-1