

String problem

[English](#)

[Vietnamese](#)

Substring of some string A is defined as one or more (not necessary succeeding) elements of the string with maintaining the sequence.

There are given two strings, string VOKI and string TOKI. Write the program that will calculate the length of any shortest substring of string VOKI such as it is not substring of string TOKI.

Input

In first line of input file there is string VOKI and in second one is string TOKI. The only characters that will occur are lowercase characters of English alphabet ('a' - 'z'). String lengths will be less or equal to 1000.

Note: input data will be such so there will always be a solution.

Output

In the first line of file you should print the length of wanted substring.

Sample

Sample input

banana
anbnaanbaan

Sample output

5

(eg. banna)

Sample input

babab
babba

Sample output

3

(eg. aab)