

Easy Longest Common Subsequence

A common subsequence between two strings A and B is defined as 2 sets $\{i_0, i_1, i_2, i_3, \dots, i_k\}$ $\{j_0, j_1, j_2, j_3, \dots, j_k\}$ such that $0 \leq i_0 < i_1 < i_2 < i_3 < \dots < A.length()$ and $0 \leq j_0 < j_1 < j_2 < j_3 < \dots < B.length()$ and $A[i_0] = B[j_0]$, $A[i_1] = B[j_1]$, ..., $A[i_k] = B[j_k]$. Given two strings A and B print the length of the longest common subsequence between them.

i.e. "a", "d", "cd" are common subsequence between the two strings "abcd" and "adcd" while "acd" is the longest common subsequence between them.

Input

First line contains a string A ($1 \leq A.length() \leq 7$).

Second line contains a string B ($1 \leq B.length() \leq 7$).

Each string is composed of lower case letters only ('a'-'z').

Output

Prints one line containing the length of the longest common subsequence.

Example

Input:

abcd

adcd

Output:

3