# **Common Child**



#### **Problem Statement**

Given two strings a and b of equal length, what's the longest string (S) that can be constructed such that it is a child of both?

A string x is said to be a child of a string y if x can be formed by deleting 0 or more characters from y.

For example, "abcd" and "abdc" has two children with maximum length 3, "abc" and "abd". Note that we will not consider "abcd" as a common child because 'c' doesn't occur before 'd' in the second string.

#### Input format

Two strings, a and b, with a newline separating them.

#### Constraints

All characters are upper cased and lie between ASCII values 65-90. The maximum length of the strings is 5000.

### **Output format**

Length of string S.

## Sample Input #0

HARRY SALLY

### Sample Output #0

2

The longest possible subset of characters that is possible by deleting zero or more characters from HARRY and SALLY is AY, whose length is 2.

# Sample Input #1

AA BB

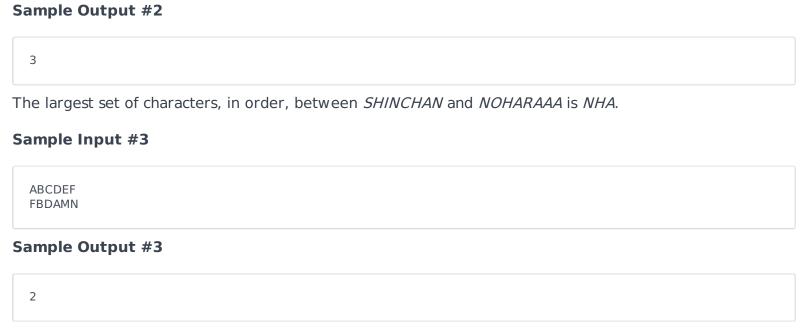
# Sample Output #1

0

AA and BB has no characters in common and hence the output is 0.

# Sample Input #2

SHINCHAN NOHARAAA



BD is the longest child of these strings.