2759 - Common Subsequence

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A subsequence of a given sequence is the given sequence with some elements (possible none) left out. Given a sequence X = <x1, x2, ..., xm> another sequence Z = <z1, z2, ..., zk> is a subsequence of X if there exists a strictly increasing sequence <i1, i2, ..., ik> of indices of X such that for all j = 1,2,...,k, xij = zj. For example, Z = <a, b, f, c> is a subsequence of X = <a, b, c, f, b, c> with index sequence <1, 2, 4, 6>. Given two sequences X and Y the problem is to find the length of the maximum-length common subsequence of X and Y.

Input

The program input is from a text file. Each data set in the file contains two strings representing the given sequences. The sequences are separated by any number of white spaces. The input data are correct.

Output

For each set of data the program prints on the standard output the length of the maximum- length common subsequence from the beginning of a separate line.

Sample Input

```
abcfbc          abfcab
programming     contest
abcd            mnp
```

Sample Output

```
4
2
0
```

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