Given two sequences of characters, print the length of the longest common subsequence of both sequences.

Sequence 1:

Sequence 2:

For example, the longest common subsequence of the following two sequences 'abcdgh' ans 'aedfhr' is 'adh' of length 3.

Input

Input consists of pairs of lines. The first line of a pair contains the first string and the second line contains the second string. Each string is on a separate line and consists of at most 1,000 characters

Output

For each subsequent pair of input lines, output a line containing one integer number which satisfies the criteria stated above.

Sample Input

```
bcacbcabbaccbab
bccabccbbabacbc
a1b2c3d4e
zz1yy2xx3ww4vv
abcdgh
aedfhr
abcdefghijklmnopqrstuvwxyz
a0b0c0d0e0f0g0h0i0j0k0l0m0n0o0p0q0r0s0t0u0v0w0x0y0z0
abcdefghijklmnzyxwvutsrqpo
opqrstuvwxyzabcdefghijklmn
```

Sample Output

```
11
4
3
26
14
```