TC2017 Análisis y Diseño de Algoritmos
ProyD – Longest Common Subsequence
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Forma de Trabajo: *Individual*.

The **longest common subsequence** (**LCS**) **problem** is the problem of finding the longest subsequence common to all sequences in a set of sequences (often just two sequences). This problem not required occupying consecutive positions within the original sequences.

For example, having the strings "AAAAAAABBAAB" and "ABAABBAB", the Longest Common Subsequence is the string "AAABBAB" with a length of 7.

Input

The input consists of a number of cases. For each case will come 2 strings (0 < length1, length <= 1000).

Output

For each case, print on a line with the length of the Longest Common Subsequence. Check the Sample Output for the presentation.

Sample input

2
AAAAAAABBAAB
ABAABBAB
XMJYAUZ
MZJAWXU

Sample Output

Case 1: 7
Case 2: 4