

IUT 4th National ICT Fest 2012



C

Common Palindrome

A **palindrome** is a string that reads the same from the left as it does from the right. Given two strings **A** and **B**, you need to find the length of longest palindrome which is a subsequence of both **A** and **B**. A subsequence is a sequence obtained by deleting zero or more characters from a string.

For example, say, \mathbf{A} = "cfcfaafc", \mathbf{B} = "efagfc". Then the longest palindrome which is a subsequence of both A and B is "faf". So the answer is 3.

Input

First line of the input contains a positive integer **T** (**T** <= 100). Each of the following **T** cases consists of 2 lines. These 2 lines contain the strings **A** and **B**, respectively. Length of **A** and **B** will not be more than 60. All these strings contain only lowercase letters ('a' -'z'). No empty strings will appear in the input.

Output

For each case, print a line of the form Case $\langle x \rangle$: $\langle y \rangle$, where x is the case number and y is the length of the longest common palindromic subsequence.

Sample Input	Sample Output
3	Case 1: 3
cfcfaafc	Case 2: 5
efagfc	Case 3: 0
afbcdfca	
bcadfcgyfka	
palin	
drome	

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