IUT 4 ${ }^{\text {th }}$ National ICT Fest 2012

## Common Palindrome

A palindrome is a string that reads the same from the left as it does from the right. Given two strings $\mathbf{A}$ and $\mathbf{B}$, you need to find the length of longest palindrome which is a subsequence of both A and $\mathbf{B}$. 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 $\mathbf{T}(\mathbf{T}<=\mathbf{1 0 0})$. Each of the following $\mathbf{T}$ cases consists of 2 lines. These 2 lines contain the strings $\mathbf{A}$ and $\mathbf{B}$, respectively. Length of $\mathbf{A}$ and $\mathbf{B}$ will not be more than $\mathbf{6 0}$. 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 $\langle\mathrm{x}\rangle$ : $\langle\mathrm{y}\rangle$, where $\mathbf{x}$ is the case number and $\mathbf{y}$ is the length of the longest common palindromic subsequence.


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