Problem B. Dissertation

Input file:	*standard input*
Output file:	*standard output*
Time limit:	1 second
Memory limit:	512 mebibytes

A professor suspects that a student's dissertation was plagiarized from a certain book. In order to test that, he wants to compute the longest common subsequence of the dissertation and the book. He doesn't have a program to do it, so he asked you to write such a program as an assignment for the algorithms course.

Input

The first line of input contains the number of test cases z ($1 \le z \le 10^9$). The descriptions of the test cases follow.

Each test case is given on two lines. The first line contains a string of length between 1 and 1 000 000 consisting of lowercase Latin letters: the text of the book. The second line contains a string of length between 1 and 1000 consisting of lowercase Latin letters: the text of the dissertation.

The sum of lengths of the books in all test cases is at most 10 000 000. The sum of lengths of the dissertations in all test cases is at most 30 000.

Output

For each test case, output the length of the longest common subsequence of the book and the dissertation.

Example

standard input	standard output
1 abcdefghijklmnopqrstuvwxyz bbddee	3