PROBLEM J. LONGEST COMMON SUBSEQUENCE

Time limit: 1 second

A string X is subsequence of another string Y if we can obtained X by deleting some (maybe no or all) characters of Y without changing order of remaining characters. For example, "ace" is a subsequence of "abcde" but "ca" isn't.

You are given 2 strings A, B and Q queries where i-th query is represented by 3 integers L_i, R_i and K_i. For each query, you task is to find the length of longest common subsequence of 2 substrings $A[1 \dots K_i]$ and $B[L_i \dots R_i]$.

Input

The first input line contains a positive integer T ($T \leq 5$), the number of test cases. T groups of lines followed, each describes a test case. Each test case consists of:

- The first line contains string A.
- The second line contains string B.
- Both A and B consist of lower case letter 'a' to 'z' only. Their lengths do not exceed 2000.
- The third line contains a positive integer Q ($Q \leq 2000$).
- Then Q lines followed, the i-th of them contains three positive integers L_i, R_i, K_i ($L_i \leq R_i \leq |B|, K_i \leq |A|$).

Output

Output T lines, each line contains Q integers where i-th of them is the answer for i-th query.

Sample

INPUT	OUTPUT
1 abcb acab 2 1 4 2 2 4 3	2 2