

## Problem K. A Text Problem

Input file: *standard input*  
Output file: *standard output*  
Time limit: 6 seconds  
Memory limit: 512 mebibytes

The string  $A$  occurs in the string  $B$  at position  $i$  *with at most one mistake* if and only if either  $A$  occurs in  $B$  at position  $i$ , or there exists a string  $A'$  obtained from  $A$  by replacing the letter at a single position with a different letter such that  $A'$  occurs in  $B$  at position  $i$ .

You are given a string  $T$  and a series of queries. Each query is a string for which you should compute the number of positions at which it occurs in  $T$  with at most one mistake.

### Input

The first line of input contains the number of test cases  $z$ . The descriptions of the test cases follow.

The first line of each test case contains a string of length between 1 and 200 000 consisting of lowercase Latin letters: the string  $T$ . The next line contains one integer  $q$ : the number of queries. Each of the following  $q$  lines contains a nonempty string consisting of lowercase Latin letters: a query. The sum of lengths of all queries in a test case is at most 200 000.

The sum of lengths of all strings appearing in all test cases (including queries) does not exceed 1 200 000.

### Output

For each query, output the number of positions in  $T$  at which the query occurs with at most one mistake.

### Example

| standard input  | standard output |
|-----------------|-----------------|
| 1<br>abcdefghij | 1<br>10         |
| 2<br>abd<br>a   |                 |