Problem E

Distinct Subsequences

Input: standard input

Output: standard output

A subsequence of a given sequence is just the given sequence with some elements (possibly none) left out. Formally, given a sequence $X = x_1x_2\ldots x_m$, another sequence $Z = z_1z_2\ldots z_k$ is a subsequence of X if there exists a strictly increasing sequence $<i_1, i_2, \ldots, i_k>$ of indices of X such that for all $j = 1, 2, \ldots, k$, we have $x_{ij} = z_j$. For example, $Z = bcdb$ is a subsequence of $X = abcbdab$ with corresponding index sequence $< 2, 3, 5, 7 >$.

In this problem your job is to write a program that counts the number of occurrences of Z in X as a subsequence such that each has a distinct index sequence.

Input

The first line of the input contains an integer N indicating the number of test cases to follow.

The first line of each test case contains a string X, composed entirely of lowercase alphabetic characters and having length no greater than 10,000. The second line contains another string Z having length no greater than 100 and also composed of only lowercase alphabetic characters. Be assured that neither Z nor any prefix or suffix of Z will have more than 10^{100} distinct occurrences in X as a subsequence.

Output

For each test case in the input output the number of distinct occurrences of Z in X as a subsequence. Output for each input set must be on a separate line.

Sample Input

```
2
babgbag
bag
rabbbit
rabbit
```

Sample Output

5
3

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