

# Circular Matching

Input file:            **standard input**  
Output file:           **standard output**  
Time limit:            1 second  
Memory limit:         1024 megabytes

Given two strings  $s$  and  $t$ , both consisting of lowercase letters.

Let  $s_{l,r}$  be the substring of  $s$  from its  $l$ -th character to its  $r$ -th character with length  $L = r - l + 1$ . We say that  $t$  appears on the circle of  $s_{l,r}$  if and only if there exists a starting position  $p$  ( $0 \leq p < L$ ) such that for all  $0 \leq k < |t|$ , we have  $s_{l,r}[(p + k) \bmod L] = t[k]$ . If  $L < |t|$ , then  $t$  is considered not to appear on the circle of  $s_{l,r}$ .

Count how many distinct pairs  $(l, r)$  satisfy that  $t$  appears on the circle of  $s_{l,r}$ .

## Input

Each test file contains multiple test cases. The first line contains the number of test cases  $T$  ( $1 \leq T \leq 2 \times 10^5$ ). The description of the test cases follows.

The first line of each test case contains a string  $s$  ( $1 \leq |s| \leq 2 \times 10^5$ ).

The second line contains a string  $t$  ( $1 \leq |t| \leq 2 \times 10^5$ ).

It is guaranteed that all strings consist of lowercase letters.

For each test file, it is guaranteed that the sum of  $|s|$  over all test cases does not exceed  $2 \times 10^5$ , and the sum of  $|t|$  over all test cases does not exceed  $2 \times 10^5$ .

## Output

For each test case, output one integer on a single line, representing the number of pairs  $(l, r)$  that satisfy the condition.

## Examples

standard input	standard output
3 cabcccabc ccabcc bcdabc abcd aaaxaaaxaaa axaaaxaa	3 3 10
4 aaaaaaaaa a abacab caba baaabaab aabaaab bbabbbabb bbbabbb	45 4 2 3