Problem G. Gerson and the Anagrams

Source file name:	Gerson.c, Gerson.cpp, Gerson.java, Gerson.py
Input:	`Standard`
Output:	`Standard`
Time / Memory limit:	`1/2/2 (C++/Java/Python) second(s) / 64 megabytes`
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Two strings are anagrams if both have the same letters, in the same quantity, but in a different order. For example, frase" is an anagram of fresa", but frase" is not an anagram of fruta".

Gerson and Melissa enjoy word games, especially finding anagrams. Gerson has invited you to try his new game. Melissa has written two strings A and B of equal length, and your task is to count, for each substring in A, how many anagrams it has among all the substrings of B, and print the total.

They are not very strict with the definition and consider that a word is also an anagram of itself. That is, for them, two equal substrings are also anagrams.

Input

The input consists of an integer T ($1 \leq T \leq 1000$), the number of test cases. Each test case consists of two lines containing the strings A and B ($1 < |A|, |B| \leq 1000, |A| = |B|$). It is guaranteed that the strings consist only of lowercase letters of the English alphabet, and the sum of the lengths of all A across all test cases is less than or equal to 1000.

Output

For each test case, print on a single line the total count of anagrams.

Example

Input	Output
3 abc axy abcde baxyz helloworld oxllxxhexx	1 3 12

Use fast I/O methods