



H - Orderly Class

Ms. Thomas is managing her class of n students.

She placed all her students in a line, and gave the i^{th} student from the left a card with the letter a_i written on it. She would now like to rearrange the students so that the i^{th} student from the left has a card with the letter b_i written on it. To do this, she will choose some consecutive group of students, and reverse their order. Students will hold on to their original cards during this process.

She's now wondering, what is the number of valid ways to do this? (It may be impossible, in which case, the answer is zero).

With sequences $abba$ and $aabb$, Ms. Thomas can choose the group $a(bba)$. With sequences $caxcab$ and $cacxab$, Ms. Thomas can choose $ca(xc)ab$ or $c(axca)b$. With sequences a and z , there are clearly no solutions.

Input

On the first line is an integer which gives the number of test cases. Following are two lines of lowercase letters, A and B . The i^{th} character of A and B represent a_i and b_i respectively. It is guaranteed that A and B have the same positive length, and A and B are not identical. The common length is allowed to be as large as 100000.

Output

For each test case, output a single integer, the number of ways Ms. Thomas can reverse some consecutive group of A to form the line specified by string B .

Sample Input

```
3
abba
aabb
caxcab
cacxab
a
z
```

Sample Output

```
1
2
0
```

