Problem: Sign of Trouble

Objective
Give practice with reading and writing to standard input in C.
Give practice with loops and conditionals in C.
Give practice with strings in C.

Story
Your newest project is working on revitalizing the movie industry. There will be a lull in the upcoming movie productions due to all the strikes, and you want to support the area by renovating a local big box store into a theater.

The first major change is to fix the signage around the store to reflect the new purpose of the space. The letters themselves of the old store are fine, and we still want a sign in the same places. The message of the sign will change, but to save costs we will reuse as many letters as possible.

Problem
Given the original message and the new message determine how many new letters will need to be purchased to create the new sign.

Input (No file input/output allowed for this assignment)
The first line of input will contain a sequence of characters (uppercase letters and spaces) denoting the original message of the sign. The second line of input will contain a sequence of characters (uppercase letters and spaces) denoting the desired resulting message of the sign.

You are guaranteed that each message will have at most 100,000 characters before the end of line characters.

Output
Output a single integer representing the number of letters that will need to be purchased.

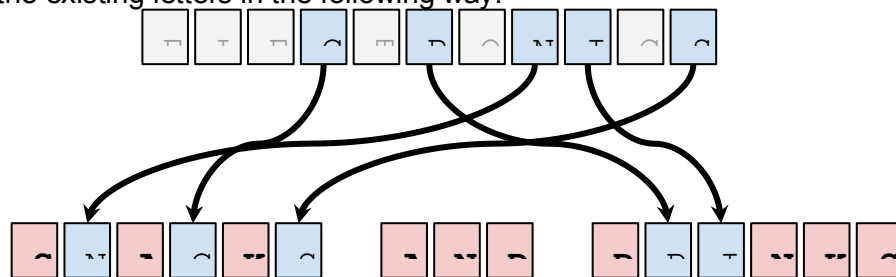| Sample Input	Sample Output
ELECTRONICS SNACKS AND DRINKS	10
SOFA SINK AND SUCH REGRET CINEMAS	8

Explanation

<u>Case 1</u>
The original sign is:

ELECTRONICS

The desired sign is:

SNACKS AND DRINKS

We can use the existing letters in the following way.

The letters in red (bolded and underlined) are the ones we will need to purchase. The letters in blue are the ones that can be reused. It should be noted that there are other ways the letters could have been assigned; the way suggested is one of the optimal ways.
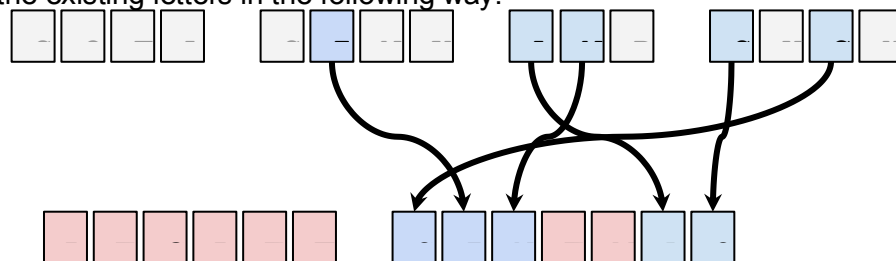
<u>Case 2</u>
The original sign is:

SOFA SINK AND SUCH

The desired sign is:

REGRET CINEMAS

We can use the existing letters in the following way.

The letters in red (bolded and underlined) are the ones we will need to purchase. The letters in blue are the ones that can be reused. Again, there are other ways the letters could have been assigned; the way suggested is one of the optimal ways.