

Problem I

Sperhling

On her spare time Caitlin loves to do speed typing. Unfortunately Caitlyn was never good at spelling. So what often happens is that Catelin makes a mistake spelling a word, and has to go back and fix her typo. One word in particular that Caitlynn has a hard time spelling is the word `mischievous`. Catelyn usually spells it `mischevious` instead. In order to fix this typo, Caytlin needs to do 12 key presses.

	<code>mischevious </code>
<code>←</code>	<code>mischeviou s</code>
<code>←</code>	<code>mischevio us</code>
<code>←</code>	<code>mischevi ous</code>
<code>BS</code>	<code>misch evous</code>
<code>←</code>	<code>mische vous</code>
<code>←</code>	<code>misch evous</code>
<code>i</code>	<code>misch evous</code>
<code>→</code>	<code>mischie vous</code>
<code>→</code>	<code>mischiev ous</code>
<code>→</code>	<code>mischievo us</code>
<code>→</code>	<code>mischievou s</code>
<code>→</code>	<code>mischievous </code>

Katelin thinks that no matter how much time she puts into speed typing, she will always make mistakes. But maybe she can get better at quickly fixing her mistakes. Katelyn would like you to help her with this.

Suppose that Caytlyn has just written the word S_1 , but that she should have written S_2 . Assume that the cursor is initially at the end of S_1 , and that after fixing the typo, Caitlin needs to place the cursor at the end of S_2 . Output the fewest number of key presses needed to make S_1 into S_2 .

The keys you are allowed to use are

- the left and right arrow keys.
- the back space key.
- the keys `a, . . . , z`.

You are not allowed to press back space or the left arrow key when the cursor is all the way to the left. You are also not allowed to press the right arrow key when the cursor is all the way to the right.

Input

The first two lines contain the strings S_1 respectively S_2 . Both S_1 and S_2 consist only of lowercase English letters, and are between 1 and 100 characters long.

Output

Output a single line with the fewest number of key presses needed to make S_1 into S_2 .

Sample Input 1**Sample Output 1**

mischevious mischievous	12
----------------------------	----

Sample Input 2**Sample Output 2**

cerstermergerd customer	20
----------------------------	----

Sample Input 3**Sample Output 3**

caitlin caitlynn	5
---------------------	---