

# DMOPC '20 Contest 5 P1 - Home Row

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**Time limit:** 2.0s    **Memory limit:** 256M

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As a 30 WPM typer, you are sitting in a computer lab playing a modified version of TypeRacer in hopes of increasing your typing speed. In this game, your goal is to transform a given string of lowercase characters  $S$  into a new string of lowercase characters  $T$ .  $S$  is the string you start with on your screen. In one keystroke, you can delete a character from the back of the current string on your screen, or you can add a new lowercase character to the back of the current string. Since you strive to be as fast as possible, please compute the minimum number of keystrokes needed to transform  $S$  into  $T$ .

## Constraints

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$1 \leq |S|, |T| \leq 10^6$ , where  $|A|$  denotes the number of characters in  $A$ .

$S$  and  $T$  only contain lowercase characters.

## Input Specification

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The first line contains the string  $S$ .

The second line contains the string  $T$ .

## Output Specification

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Output one integer, the minimum number of keystrokes needed to transform  $S$  into  $T$ .

## Sample Input 1

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adachi
shimamura
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## Sample Output 1

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15
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## Sample Input 2

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shinomiya  
shirogane

## Sample Output 2

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12