

Given two strings, a and b , find and print the total number of ways to insert a character at any position in string a such that the length of the [Longest Common Subsequence](#) of characters in the two strings increases by one.

Input Format

The first line contains a single string denoting a .
The second line contains a single string denoting b .

Constraints

Scoring

- $1 \leq |a|, |b| \leq 5000$
- Strings a and b are alphanumeric (i.e., consisting of arabic digits and/or upper and lower case English letters).
- The new character being inserted must also be alphanumeric (i.e., a digit or upper/lower case English letter).

Subtask

- $1 \leq |a|, |b| \leq 1000$ for **66.67%** of the maximum score.

Output Format

Print a single integer denoting the total number of ways to insert a character into string a in such a way that the length of the longest common subsequence of a and b increases by one.

Sample Input

```
aa  
baaa
```

Sample Output

```
4
```

Explanation

The longest common subsequence shared by $a = \text{"aa"}$ and $b = \text{"baaa"}$ is aa , which has a length of **2**. There are two ways that the length of the longest common subsequence can be increased to **3** by adding a single character to a :

1. There are **3** different positions in string a where we could insert an additional a to create longest common subsequence aaa (i.e., at the beginning, middle, and end of the string).
2. We can insert a b at the beginning of the string for a new longest common subsequence of baa .

As we have $3 + 1 = 4$ ways to insert an alphanumeric character into a and increase the length of the longest common subsequence by one, we print **4** on a new line.