

Edit Distance

time limit per test: 1 second (2 seconds for Python)
memory limit per test: 976.6 megabytes
input: standard input
output: standard output
points: 100 · problem code: editdistance · author: inj

You are given two strings a and b . In 1 operation you can do one of the following:

- Remove a character from a
- Insert a character into a
- Replace a character in a with another character.

What is the number of operations to turn the string a into b .

Input

The first line will contain the string a . The second line will contain the string b .

Output

Output the minimum number of operations to turn the string a into b .

Constraints

- $1 \leq |a|, |b| \leq 10^3$

Example 1

Input

```
bbababbbab  
ababbabbbb
```

Output

```
3
```

Example 2

Input

```
eadbeadcbc  
bebbbceeca
```

Output

```
8
```

Example 3

Input

```
ebdccedbcbbdddcdeab  
abdcbaaeababddedbcd
```

Output

```
12
```