

Finding the Edit Distance

The **edit distance** between two strings is the **minimum** number of operations required to transform one string into the other.

The allowed operations are:

- Add one character to the string.
- Remove one character from the string.
- Replace one character in the string.

Your task is to calculate the edit distance between two strings.

Input Format

- The first input line has a string that contains **n** characters between **A–Z**.
- The second input line has a string that contains **m** characters between **A–Z**.

Constraints

- $1 \leq n, m \leq 5000$

Output Format

- Print one *integer*: the edit distance between the strings.

Sample Input 0

```
LOVE
MOVIE
```

Sample Output 0

```
2
```

Explanation 0

One way you can transform **LOVE** to **MOVIE** to is:

- Replace **L** with an **M**
- Insert an **I** between **V** and **E**

Therefore, minimum number of operations required is **2**