# Minimum string moves

We have two strings A and B which are permutations of the same set of characters. We need to change these strings to obtain two identical strings by performing the following operations:

- 1) swap two consecutive characters of a string
- 2) swap the first and the last characters of a string

The operation can be performed on either string. Return the minimum number of moves that we need in order to obtain two equal strings?

#### **Constraints**

 $1 < length(A) = length(B) \le 2,000$ 

All the input characters are between 'a' and 'z'

The count of each distinct character in A is identical to the count of the same character in B.

### Input

First line: String A.

Second line: String B.

## **Output**

Minimum number of moves.

## **Example**

Input:

aab

baa

#### **Output:**

1