



Common Child ☆

Problem

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A string is said to be a child of a another string if it can be formed by deleting 0 or more characters from the other string. Given two strings of equal length, what's the longest string that can be constructed such that it is a child of both?

For example, ABCD and ABDC have two children with maximum length 3, ABC and ABD . They can be formed by eliminating either the D or C from both strings. Note that we will not consider ABCD as a common child because we can't rearrange characters and $ABCD \neq ABDC$.

Input Format

There is one line with two space-separated strings, *s1* and *s2*.

Constraints

- $1 \leq |s1|, |s2| \leq 5000$
- All characters are upper case in the range `ascii[A-Z]`.

Output Format

Print the length of the longest string *s*, such that *s* is a child of both *s1* and *s2*.

Sample Input

```
HARRY
SALLY
```

Sample Output

```
2
```

Explanation

The longest string that can be formed by deleting zero or more characters from *HARRY* and *SALLY* is *AY*, whose length is 2.

Sample Input 1

```
AA
BB
```

Sample Output 1

```
0
```

Explanation 1

AA and *BB* have no characters in common and hence the output is 0.

Sample Input 2

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Difficulty	Medium
Max Score	60
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SHINCHAN
NOHARAAA

Sample Output 2

3

Explanation 2

The longest string that can be formed between *SHINCHAN* and *NOHARAAA* while maintaining the order is *NHA*.

Sample Input 3

ABCDEF
FBDAMN

Sample Output 3

2

Explanation 3

BD is the longest child of the given strings.

Current Buffer (saved locally, editable)



Java 7



```
1 import java.io.*;
2 import java.util.*;
3 import java.text.*;
4 import java.math.*;
5 import java.util.regex.*;
6
7 public class Solution {
8
9     static int commonChild(String s1, String s2){
10         // Complete this function
11     }
12
13     public static void main(String[] args) {
14         Scanner in = new Scanner(System.in);
15         String s1 = in.next();
16         String s2 = in.next();
17         int result = commonChild(s1, s2);
18         System.out.println(result);
19     }
20 }
```

Line: 1 Col: 1

Upload Code as File

☐ Test against custom input

Run Code

Submit Code