

Intermediate Division - Diff

考号/Exam Code: _____ 姓名/Name: _____ 学校/School: _____

PROBLEM: A useful computer utility is to report the differences between two files. In this program, you will compare two strings to find common substrings.

The following algorithm will be used: Consider each character in turn in the first string. If it appears in the second string, add it to a resulting common string and delete all characters in the second string up to and including that character.

For example, the common string from `abcddef` to `vdfaddwf` is `addf`. The common string from `vdfaddwf` to `abcddef` is `df`.

INPUT: 5 lines of data. Each line will contain two strings, A and B. The strings will contain letters only and the strings will be separated by a single blank. Each string will have fewer than 64 characters.

OUTPUT: For each line, find the common string from A to B and from B to A going from left to right. Then repeat the process going from right to left. This will produce 4 common strings. Print in alphabetical order all of the different letters that are contained in all 4 common strings. If there are none that are common to all 4 strings, print "NONE".

SAMPLE INPUT

```
abcddef vdfaddwf
friends afraid
delicious indiginous
shalom saaalaaam
happy shipshape
```

SAMPLE OUTPUT

1. df
2. dfir
3. iosu
4. ams
5. hp

TEST INPUT

```
seashells seashore
newjersey jerseyshore
javaprogramming programinjava
hurricanesandy hurrytosandbeaches
antidisestablishmentarianism antitotalitarianism
```

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PROBLEM (问题) : 一个有用的计算机实用程序是报告两个文件之间的差异。在这个程序中, 你将比较两个字符串以找到常见的子字符串。

将使用以下算法: 依次考虑第一个字符串中的每个字符。如果它出现在第二个字符串中, 请将其添加到生成的常见字符串中, 并删除第二个字符串中直到该字符以前的所有字符。

例如, 从 abcdef 到 vdfaddwf 的常见字符串是 addf。从 vdfaddwf 到 abcdef 的常见字符串是 df。

INPUT (输入) : 5 行数据。每行包含两个字符串, A 和 B。字符串只包含字母, 字符串之间用一个空格分隔。每个字符串少于 64 个字符。

OUTPUT (输出) : 对于每一行, 从左到右依次找出从 A 到 B 和从 B 到 A 的常见字符串。然后从右向左重复这个过程。将新产生的 4 个常见字符串, 按字母表顺序(a-z)输出这 4 个常见字符串共有的不同字符。如果所有 4 个字符串都是空的, 则输出 “NONE”。

SAMPLE INPUT (示例输入)

```
abcddef vdfaddwf
friends afraid
delicious indiginous
shalom saaalaaam
happy shipshape
```

SAMPLE OUTPUT (示例输出) :

1. df
2. dfir
3. iosu
4. ams
5. hp

TEST INPUT

```
seashells seashore
newjersey jerseyshore
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