COCI '12 Contest 3 #2 Poredak

Time limit: 1.0s **Memory limit:** 32M

Mirko-wan has just received the results of his history exam. One of the problems was putting famous historical battles into chronological order. The correct order was:

1. Blockade of Naboo 2. Battle of Geonosis 3. Battle of Yavin 4. Battle of Hoth 5. Battle of Endor

Mirko-wan has studied (relatively) hard for the exam, so he remembered the exact years of all battles, except for the Blockade of Naboo. He couldn't remember anything about it, so he randomly placed it last instead of first, obtaining the order:

1. Battle of Geonosis 2. Battle of Yavin 3. Battle of Hoth 4. Battle of Endor 5. Blockade of Naboo

Since Mirko-wan's order doesn't match the correct solution at any index, Mirko-wan's score on that problem was – to his disappointment – 0 out of 5 points, even though he knew the correct order of four out of five battles!

This opens the question of fair scoring of an ordering problem. The example given above suggests that scoring by counting the number of items in the correct absolute position isn't fair. Is there a better way?

One possibility is finding the longest subsequence (not necessarily contiguous) of correctly ordered items. This isn't the best solution either: if an item is displaced by just one position from the correct order, the score that it awards drops to zero, even though it was almost correctly ordered.

Mirko-wan has thus suggested (using the MAWT – Might As Well Try a Mind Trick approach) the following scoring method to his history teacher. **For every two items**, the student will receive 1 **point** if the two items are in mutually correct order. In other words, the number of points is the number of item pairs that the student has correctly ordered. The maximum number of points is then, of course, the total number of pairs, which equals $N \cdot (N-1)/2$, where N is the total number of entries.

Input Specification

The first line of input contains the positive integer N $(2 \leq N \leq 2500)$, the number of items. The items are distinct words consisting of 3 to 15 lowercase English letters.

The second line of input contains the N items, space-separated, listed in the correct order.

The third line of input contains the N items, space-separated, listed in Mirko-wan's order.

Output Specification

The first and only line of output must contain, with no spaces, the following: the number of points that Mirko-wan would earn using his scoring method, a `/`, and the maximum possible number of points for that problem (again assuming Mirko-wan's scoring method). (This is the usual notation found on a typical graded exam.)

Sample Input 1

```
3
alpha beta gamma
alpha gamma beta
```

Sample Output 1

```
2/3
```

Explanation for Sample Output 1

Mirko-wan has received points for the pairs (alpha, beta) and (alpha, gamma).

Sample Input 2

```
5
naboo geonosis yavin hoth endor
geonosis yavin hoth endor naboo
```

Sample Output 2

```
6/10
```