Substring Scoring

Time limit: 1.0s **Memory limit:** 256M

You are given three strings, P, S, T. We will define the score of a substring M of S as the sum of the length of the longest suffix of P that is a prefix of M and the length of the longest prefix of T that is a suffix of M. Find the highest possible score of any such substring of S. Each string will only contain lowercase letters.

Subtasks

1. (40 points) $1 \leq |P|, |S|, |T| \leq 200$
2. (60 points) $1 \leq |P|, |S|, |T| \leq 10^5$

Input Specification

The first line will contain the string P, the second will contain S, and the third T.

Output Specification

A single integer, denoting the largest achievable score of any substring of S.

Sample Input 1

```
abc
abcdef
f
```

Sample Output 1

```
4
```

Sample Input 2

```
aa
aa
aa
```

Sample Output 2

```
4
```