

## Practice Problem PA

### Frequent Letter

Your Facebook account has just been hacked and you want to change its password. To create a strong password, Facebook just recommended you two strings  $S$  and  $T$ , each contains  $N$  lowercase English letters. You want to choose a password containing  $N$  lowercase English letters such that the  $i^{th}$  character is either the  $i^{th}$  character of  $S$  or the  $i^{th}$  character of  $T$ .

For example, if  $S = icyz$  and  $T = ixpc$ , then there are 8 different passwords that you can choose:  $icyz$ ,  $icyc$ ,  $icpz$ ,  $icpc$ ,  $ixyz$ ,  $ixyc$ ,  $ixpz$ ,  $ixpc$ .

The strength of your password is defined as the number of occurrences of the most frequent letter. For example, the strength of  $icyz$  is 1 and the strength  $icpc$  is 2. You are wondering what is the strength of the strongest password that you can choose.

#### Input

Input begins with a line containing an integer  $N$  ( $1 \leq N \leq 100\,000$ ) representing the length of the passwords. The second line contains a string  $S$  containing  $N$  lowercase English letters. The third line contains a string  $T$  containing  $N$  lowercase English letters.

#### Output

Output contains an integer in a line representing the strength of the strongest password that you can choose.

#### Sample Input #1

```
4
icyz
ixpc
```

#### Sample Output #1

```
2
```

#### *Explanation for the sample input/output #1*

This sample is illustrated by the example given in the problem description above. There is no password with a strength of greater than 2 that you can choose.

#### Sample Input #2

```
11
goodluckfor
contestants
```

**Sample Output #2**

3

**Sample Input #3**

14  
helpiamtrapped  
inaninfactory

**Sample Output #3**

4