

Problem I

Frequent Alphabet

Your social media account has just been hacked, and you are advised to change your password. You have two favorite strings S and T , each contains exactly N lowercase alphabets. You want the new password to be some combinations of these two strings. Specifically, the new password P should contain N alphabets such that the i^{th} character of P is either the i^{th} character of S or the i^{th} character of T .

For example, let $S = \text{"icyz"}$ and $T = \text{"ixpc"}$. There are 8 different possible new passwords which you can choose: "icyz", "icyc", "icpz", "icpc", "ixyz", "ixyc", "ixpz", and "ixpc".

The score of a password P is defined as the number of occurrences of the most frequent alphabet in P . For example, let $P = \text{"icpc"}$. The password "icpc" has one occurrence of 'i', two occurrences of 'c', and one occurrence of 'p'. The most frequent alphabet in P is 'c' with the number of occurrences of 2. Therefore, the score of "icpc" is 2.

Given two strings S and T , your task is to find the highest score you can get for your new password.

Input

Input begins with a line containing an integer: N ($1 \leq N \leq 100\,000$) representing the length of the password. The next line contains a string S containing N lowercase alphabets representing your first favorite string. The next line contains a string T containing N lowercase alphabets representing your second favorite string.

Output

Output in a line an integer representing the highest score you can get for your new password.

Sample Input #1

```
4
icyz
ixpc
```

Sample Output #1

```
2
```

Explanation for the sample input/output #1

These two strings are given as an illustration in the problem description as well as all its possible new passwords. Among them, the passwords "icyc" and "icpc" have the highest score of 2, while the other remaining passwords have a score of 1.

Sample Input #2

```
11  
goodluckfor  
contestants
```

Sample Output #2

```
3
```

Sample Input #3

```
14  
helpiamtrapped  
inaninfactory
```

Sample Output #3

```
4
```