

Short Palindrome



Consider a string, s , of n lowercase English letters where each character, s_i ($0 \leq i < n$), denotes the letter at index i in s . We define an (a, b, c, d) palindromic tuple of s to be a sequence of indices in s satisfying the following criteria:

- $s_a = s_d$, meaning the characters located at indices a and d are the same.
- $s_b = s_c$, meaning the characters located at indices b and c are the same.
- $0 \leq a < b < c < d < |s|$, meaning that a, b, c , and d are ascending in value and are valid indices within string s .

Given s , find and print the number of (a, b, c, d) tuples satisfying the above conditions. As this value can be quite large, print it modulo $10^9 + 7$.

Input Format

A single string denoting s .

Constraints

- $1 \leq |s| \leq 10^6$
- It is guaranteed that s only contains lowercase English letters.

Output Format

Print the the number of (a, b, c, d) tuples satisfying the conditions in the *Problem Statement* above. As this number can be very large, your answer must be modulo $(10^9 + 7)$.

Sample Input 0

```
kkkkkkz
```

Sample Output 0

```
15
```

Explanation 0

The letter **z** will not be part of a valid tuple because you need at least two of the same character to satisfy the conditions defined above. Because all tuples consisting of four **k**'s are valid, we just need to find the number of ways that we can **choose** four of the six **k**'s. This means our answer is $\binom{6}{4} \bmod (10^9 + 7) = 15$.

Sample Input 1

```
ghhggh
```

Sample Output 1

```
4
```

Explanation 1

The valid tuples are:

1. $(0, 1, 2, 3)$
2. $(0, 1, 2, 4)$
3. $(1, 3, 4, 5)$
4. $(2, 3, 4, 5)$

Thus, our answer is $4 \bmod (10^9 + 7) = 4$.

Sample Input 0

kkkkkkz

Sample Output 0

15

Sample Input 1

abbaab

Sample Output 1

4

Sample Input 2

akakak

Sample Output 2

2

Explanation 2

Tuples possible are $(1, 2, 4, 5)$ *and* $(0, 1, 3, 4)$