DMOPC '15 Contest 7 P6 - A Very Very Original Problem

Given a string, output the number of **nice** pairs of **special** substrings. A special substring is a string that reads the same forwards and backwards. A nice pair of substrings is a pair of substrings that has the following property: after you remove the first substring from the string, you can still remove the second substring from the string (note that neither substring should be contained in the other to be nice).

Input Specification

The first and only line of input will contain a string consisting of lowercase letters. The length of the string will be at least 1 and at most 10^5 characters long.

Output Specification

Output the number of **nice** pairs of **special** substrings.

Sample Input 1

```
aba
```

Sample Output 1

```
3
```

Sample Input 2

```
aaayyylllmmmaaaooo
```

Sample Output 2

```
570
```