

Problem C. Three Indices

Input file: *standard input*
Output file: *standard output*
Time limit: 2 seconds
Memory limit: 512 mebibytes

A string t is called a *smooth transformation* of a string w if there exist an integer $m \geq 1$ and strings w_0, w_1, \dots, w_m such that:

- $w_0 = w$, and $|w_i| = |w|$ when $0 < i \leq m$;
- w_i differs from w_{i-1} in at most one position when $0 < i \leq m$;
- $t = w_0 w_1 \dots w_m$.

You are given a string $s = s_1 s_2 \dots s_{|s|}$. Find the number of triplets of indices (i, j, k) such that $1 \leq i < j < k \leq |s|$ and $s_{i..k} = s_i s_{i+1} \dots s_k$ is a smooth transformation of $s_{i..j} = s_i s_{i+1} \dots s_j$.

Input

The only line of the input contains the string s ($4 \leq |s| \leq 10^5$) consisting of lowercase English letters.

Output

Display the sought number of triplets.

Example

standard input	standard output
abcababc	5

Note

In the example test case, the triplets are $(1, 3, 6)$, $(3, 4, 6)$, $(3, 4, 8)$, $(4, 5, 7)$, and $(5, 6, 8)$.