

Multiple of 2019

time limit per test: 1 second (3 seconds for Python)

memory limit per test: 256 megabytes

input: standard input

output: standard output

points: 100 · problem code: multipleof2019

Given is a string S consisting of digits from **1** through **9**.

Find the number of pairs of integers (i, j) with $1 \leq i \leq j \leq |S|$ such that the substring from the i -th character through the j -th character of S , interpreted as a base ten integer, is a multiple of 2019.

Input

The input consists of a single line containing S .

Output

Print the number of pairs of integers (i, j) that satisfy the condition.

Constraints

- $1 \leq |S| \leq 200000$
- S is a string consisting only of digits from **1** through **9**

Example 1

Input

1817181712114

Output

3

Explanation

The valid pairs are $(1, 5)$, $(5, 9)$, and $(9, 13)$.

Example 2

Input

14282668646

Output

2

Example 3

Input

2119

Output

0

Explanation

No pairs satisfy the condition.