Super Six Substrings

HackerRank

David loves numeric strings. He considers a substring of a numeric sequence to be *super* if both of the following conditions are satisfied:

- The substring's integer representation is divisible by **6**.
- It does not contain leading zeroes (e.g., 6 is super, but 06 is not).

In addition, he considers the one-character substring 0 to be super.

For example, s = "606" has five super substrings: 6, 0, 6, 60, and 606.

Given s, find and print the total number of super substrings in s.

Note: The length of the numbers represented by s and its substrings are likely to be outside of the bounds of what numeric data types can represent.

Input Format

A single numeric string denoting s.

Constraints

• $1 \leq |s| \leq 10^5$

Output Format

Print an integer denoting the number of super substrings.

Sample Input 0

4806

Sample Output 0

5

Explanation 0

The diagram below depicts the five super substrings of string s = "4806":



Note that substrings 48, 480, and 4806 are super because they're divisible by **6** and do not contain any leading zeroes, and the substring 0 is super because it consists of a single zero.