Problem B Password

Time limit: 1 second Memory: 1024 megabytes

Problem Description

In modern software systems, information security is one of the top priorities. One common method to ensure security is by encrypting users' passwords. However, to add an extra layer of protection, software systems typically do not store passwords in their original form but instead apply a special encryption mechanism. One such encryption method is to transform the real password into a string of characters following a specific rule.

In this problem, the software developer has used a special encryption rule to encode the actual user password. Specifically, they encrypt the original password into a string of characters consisting of characters from the ASCII table. To unlock the software and find the real password, you need to apply a decryption process based on the given rule. This decryption process will help you discover the actual system password.

The actual password is a sequence of exactly 6 decimal digits (0 to 9). However, the system has encrypted this password into a string of arbitrary characters, which may include letters, numbers, and special characters. Your task is to decrypt this string and calculate the real password.

Specifically, to determine the password, the system requires you to follow these steps: from the encrypted string, you need to calculate the sum of all digits in that string. If this sum contains fewer than 6 digits, you must prepend zeros to the sum so that it becomes a 6-digit number. For example, if the sum is 45, the password will be "000045". If the sum is 1234, the password will be "001234". If the sum is already a 6-digit sequence (e.g., 345678), then that will be the password. Your task is to write a program and perform the calculation to find the actual password based on the encrypted string provided by the system.

Problem requirements: You need to write a program to read the encrypted string from the keyboard, then calculate and output the real system password in the correct 6-digit format.

Input data:

• The program will read a string S from the keyboard. This string may contain any characters, including letters (both uppercase and lowercase), digits (0-9), and special characters (such as dots, commas, spaces, hyphens, etc.).

Output data:

• The program will output a sequence of exactly 6 digits representing the actual system password. If the sum of the digits in the string is less than 6 digits, the program will prepend zeros to the sum to ensure the password has exactly 6 digits.

Example:

INPUT	OUTPUT
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