Security - Message Space and Ciphertext Space

To better understand *Message Spaces* and *Cipher Spaces*, we will first explain the *alphabet of definitions*.

A denotes a finite set called the *alphabet of definition*. For example, $A = \{0, 1\}$ is the *binary alphabet*. It is a frequently used alphabet of definition.

M denotes a set called *message space*. M consists of strings composed of symbols from an alphabet of definition.

C denotes a set called the *ciphertext space*. C consists of strings composed of symbols from an alphabet of definition which might or might not differ from that of M.

For example, consider the following encryption: You get a message composed of lowercase English characters only. For any letter in the message, you shift it one time and create a new message that you then transmit. If you get "abz" then you transform it to "bca".
Here, A is $\{$'a', 'b', 'c', ... , 'z'$\}$.

Both C and M are sets of all strings composed of lowercase English characters.

For example:

$\{abc, degg, fe, \dots\} \in M$

and

$\{bcd, efhh, gf, \dots.\} \in C$ (corresponding to the strings in M)

For every possible string in M, there is a string in C.

In this task, your alphabet of definition is $A = \{0, 1, 2, \dots, 9\}$.
M and C are both sets of all strings consisting of decimal digits. Given a coded message, you need to find the new message you obtain if you shift each digit in the message string. You must shift 1 to the right, and it is cyclic.

Constraints

$1 \leq$ *Length of the string* ≤ 10

Input Format

Input consists of a single line that contains the string.

Output Format

Output a single line, the shifted string.

Sample Input

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982
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Sample Output

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093
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