

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 $\{'a', 'b', 'c', \dots, 'z'\}$.

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

$1 \leq \text{Length of the string} \leq 10$

Input Format

Input consists of a single line that contains the string.

Output Format

Output a single line, the shifted string.

Sample Input

982

Sample Output

