

Problem Statement

K denotes a set called the *key space*. Any element of K is called a *key*.

Each element $e \in K$ uniquely determines a bijection from M to C , denoted by E_e . E_e is called an encryption function. Similarly for each $d \in K$ we have a bijection from C to M , denoted by D_d and it is called a decryption function.

For example, consider the same shifting function that we dealt with in the previous challenge. Now suppose the amount of shift we do is some e ($e = 1$ in previous question). Then e is a valid key representing the bijective function $f(x) = \text{shift_x_by_e}$.

For this task, consider a message which consists of decimal digits and a key e which operates by shifting each digit by e places. Find the corresponding cipher text.

Constraints

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

$0 \leq e \leq 9$

Input Format

Input consists of 2 lines.

The first line contains the message string.

The second line contains the key e .

Output Format

Output a single line which contains the cipher thus obtained.

Sample Input

```
391
2
```

Sample Output

```
513
```