A. Adding Digits

time limit per test
2 seconds
memory limit per test
256 megabytes
input
standard input
output
standard output

Vasya has got two number: a and b. However, Vasya finds number a too short. So he decided to repeat the operation of lengthening number a n times.

One operation of lengthening a number means adding exactly one digit to the number (in the decimal notation) to the right provided that the resulting number is divisible by Vasya's number b. If it is impossible to obtain the number which is divisible by b, then the lengthening operation cannot be performed.

Your task is to help Vasya and print the number he can get after applying the lengthening operation to number a n times.

Input

The first line contains three integers: a, b, n ($1 \le a, b, n \le 10^5$).

Output

In a single line print the integer without leading zeros, which Vasya can get when he applies the lengthening operations to number a n times. If no such number exists, then print number -1. If there are multiple possible answers, print any of them.

Examples

input

Copy

```
5 4 5
```

output

```
524848
```

input

Copy

```
12 11 1
```

output

```
121
```

input

Copy

```
260 150 10
```

output

```
-1
```