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
5 4 5
output
524848

input
12 11 1
output
121

input
260 150 10
output
-1

Codeforces Round #158 (Div. 2)
Finished

→ Virtual participation

Virtual contest is a way to take part in past contest, as close as possible to participation on time. It is supported only ACM-ICPC mode for virtual contests. If you've seen these problems, a virtual contest is not for you - solve these problems in the archive. If you just want to solve some problem from a contest, a virtual contest is not for you - solve this problem in the archive. Never use someone else's code, read the tutorials or communicate with other person during a virtual contest.

Start virtual contest

→ Problem tags

implementation math

No tag edit access

→ Contest materials

- Announcement
- Tutorial