Primitive Calculator

Time Limit: 1.0s **Memory Limit:** 256M

Alim has a primitive calculator. It has only two buttons — digit and operation. Assume the current number on the calculator display is C. The digit button appends digit X to the current number. Formally, it replaces it with $10 \cdot C + X$. The operation button computes the following sum

$$S = \sum_{i=0}^{i<K} C \cdot 10^i$$

and replaces the current number on the display with S. Alim's friend Aslı is playing with the calculator. Initially the calculator displays number 0 (zero). First Aslı presses digit button N times. Then he presses the operation button once. What is the number on the calculator display at the end of the day?

For example if $X = 9, N = 3, K = 4$ then the result is $999 + 9990 + 99900 + 999000 = 1109889$.

Input

Three integers X, N, K separated with single spaces.

Output

The result shown by the calculator.

Constraints $1 \leq X \leq 9$, $1 \leq N; K$, $N + K \leq 10^6$.

Samples

Input (stdin)

```
9 3 4
```

Output (stdout)

```
1109889
```