

Bugcat's Counting Game

Input file: standard input
Output file: standard output
Time limit: 1 second
Memory limit: 256 megabytes

There is a creature known as Bugcat who wants to play a counting game. At the start of the game, Bugcat chooses a fixed integer k . Then, starting from 1, Bugcat begins counting upwards, but it will only call out a number if it meets at least one of the following conditions:

1. The number is a multiple of k .
2. The digit k appears in the decimal representation of the number.

Bugcat wants to know what the x -th number it calls out will be. Since Bugcat is a bit slow and can only count one by one, it has tasked you with finding the answer.

Input

The input consists of two integers, k and x ($1 \leq k \leq 9, x \leq 10^5$).

Output

Print a single integer representing the x -th number that Bugcat calls out.

Examples

standard input	standard output
3 5	13
4 5	16

Note

In the first test case, the numbers Bugcat calls out are 3, 6, 9, 12, 13, ... The 5-th number in this sequence is 13.

In the second test case, the numbers Bugcat calls out are 4, 8, 12, 14, 16, ... The 5-th number in this sequence is 16.