Problem H. Simple Design

Time limit 1000 ms
Mem limit 262144 kB

A positive integer is called k-beautiful, if the digit sum of the decimal representation of this number is divisible by k[†]. For example, 9272 is 5-beautiful, since the digit sum of 9272 is $9 + 2 + 7 + 2 = 20$.

You are given two integers x and k. Please find the smallest integer $y \geq x$ which is k-beautiful.

[†] An integer n is divisible by k if there exists an integer m such that $n = k \cdot m$.

Input

Each test contains multiple test cases. The first line contains the number of test cases t ($1 \leq t \leq 10^4$). The description of the test cases follows.

The only line of each test case contains two integers x and k ($1 \leq x \leq 10^9$, $1 \leq k \leq 10$).

Output

For each test case, output the smallest integer $y \geq x$ which is k-beautiful.

Examples

Input	Output
6 1 5 10 8 37 9 777 3 1235 10 1 10	5 17 45 777 1243 19

Note

In the first test case, numbers from 1 to 4 consist of a single digit, thus the digit sum is equal to the number itself. None of the integers from 1 to 4 are divisible by 5.

In the fourth test case, the digit sum of 777 is $7 + 7 + 7 = 21$ which is already divisible by 3.