

Problem C

‘Crazy Display’

Problem description

Today, the Strawberry Delta mini-computer is released, you have been waiting for it for long time, but today it will be yours. You need to pick it up at the computer store around the corner. When you arrives to the store, you cannot believe what is happening!

In prevision of the great number of enthusiastic mini-computers geeks, the store manager has order to install the biggest queue number dispenser system in the market. The system can shows numbers with almost any numbers digits. Unfortunately, with the rush, the display showing the current queue number has been installed wrongly, upside down. The number appears rotated 180 degrees, when the display shows 12, actually it the 21, and the 89, it is the 68, and so on...

As it is not time to fix it to the right position, the store manager has decided to change the number dispenser software, so the dispenser gives only number with digits that corresponds with real numbers upside down (rotated 180 degrees). This way, by rotating the number obtained from the dispenser, the number be align with the display. The display will increase the turn number to the next number that can be represented upside down.

The problem with this approach is to know when it will be your turn, to know how many persons are waiting before you. You decide that you can help by writing an app that taking as input the number from the dispenser N (no rotated), and the number from the Display (rotated), it calculates the the number of persons in the queue waiting before you.

Problem input/output

The problem input consists of a single line with two integers, N and D , separated by a blank. The program will output a single line with the number of person in the queue before you.

N and D can be up to 10000 digits. The **execution limit** for the problem is **2 seconds**.

Sample input/output

Sample input and output for this problem:

Input	Output
9 21	3
1 65	26