PROBLEM #2:

Palindrome Odometer

Description:

Every car has an odometer, and people get all excited whenever their car reaches a certain mileage milestone. We all have seen Facebook photos of odometers reading '100,000' or '150,000'. But you are a computer scientist, you are interested in truly interesting odometer readings, like when the odometer reads a **palindrome**.
Given any odometer reading, what is the least number of miles you need to drive before the odometer reading is a palindrome? Every odometer digit counts. If the odometer reads '**000121**', that shall not be considered a palindrome

Input:

There will be several test cases in the input. Each test case will consist of an odometer reading on its own line. Each odometer reading will be from **2** to **9** digits long. The odometer in question has the number of digits given in the input - so, if the input is **00456**, the odometer has **5** digits. There will be no spaces in the input, and no blank lines between input sets. The input will end with a line with a single **0**.

Output:

For each test case, output the minimum number of miles you must drive before the odometer reading is a palindrome. Output each integer on its own line, with no extra spaces and no blank lines between outputs.

Sample:

Input	Output
100000 100001 000121 00456	1 0 979 44

0	