## The Next Palindrome

A positive integer is called a palindrome if its representation in the decimal system is the same when read from left to right and from right to left. For a given positive integer $K$ of not more than 1000000 digits, write the value of the smallest palindrome larger than $K$ to output. Numbers are always displayed without leading zeros.

## Input

The first line contains integer $t$, the number of test cases. Integers $K$ are given in the next $t$ lines.

## Output

For each $K$, output the smallest palindrome larger than $K$.

## Example

Input:
2
808
2133
Output:
818
2222
Warning: large Input/Output data, be careful with certain languages

