

The next and the previous palindrome

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[English version](#)

Input

The input consist of unknown number (lower than 100) of tests. Each test is a line with two integers x and y ($0 \leq x \leq 2 \cdot 10^9$, length of y is at most 1000).

Output

For each test You should print:

- the next palindrome of y - if x is even
- the previous palindrome of y - if x is odd

Example

Input:

10 9029

11 9029

Output:

9119

9009

Note: Leading zeroes don't occur in the input and shouldn't occur in the output.