B. Lucky Year

Time limit: 1s   Memory limit: 256 MB

Apart from having lots of holidays throughout the year, residents of Berland also have whole *lucky* years. Year is considered *lucky* if it has no more than 1 non-zero digit in its number. So years 100, 40000, 5 are *lucky* and 12, 3001 and 12345 are not.

You are given current year in Berland. Your task is to find how long will residents of Berland wait till the next *lucky* year.

Input
The first line contains integer number n ($1 \leq n \leq 10^9$) — current year in Berland.

Output
Output amount of years from the current year to the next *lucky* one.

Examples

input
4
output
1

input
201
output
99

input
4000
output
1000

Note
In the first example next *lucky* year is 5. In the second one — 300. In the third — 5000.