Old Ballads

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	1024 megabytes

Remember the days with a radio station
Not knowing which song was playing

Akie has a very old music player. The player can play x songs in sequence and displays the number of songs remaining, denoted as x', on the screen. Initially, $x' = x$. After each song finishes playing, x' decreases by 1 until it reaches 0. However, the screen of this player is broken and can only show the most significant digit of x'; it cannot show the exact value or the number of digits of x'.

Akie does not know the exact value of x, but she can infer the value of x based on the information shown on the screen. So, after how many songs must Akie wait at least to be sure of the value of x?

Input

A line with a single integer x ($10 \leq x \leq 10^6$).

Note: Akie does not know the upper bound of x; for her, x could be any positive integer not less than 10.

Output

Output an integer representing the minimum number of songs Akie must wait to determine the value of x.

Examples

standard input	standard output
33	14
789	190

Note

In the first example, initially Akie sees the digit 3 on the screen, and it does not change after the first 3 songs. Over the next 10 songs, the digit on the screen becomes 2, but at this point she cannot rule out numbers like 303 or 3003. After one more song, the digit on the screen becomes 1, and then she can determine that x is 33.