D. MOD10

The function f(x) is defined as follows: If $0 \leq x \leq 9$, then f(x) = x!, and if x > 9, then f(x) = (x mod 10)! + f($\lfloor x/10 \rfloor$).

The brackets $\lfloor \rfloor$ denote the floor value of a number (e.g. $\lfloor 2.43 \rfloor$ = 2). Exclamation mark denotes the factorial, i.e., $x! = 1 \times 2 \times \cdots \times x$ for x > 0 and 0! = 1.

With a number y, you need to input smallest such non-negative integer x, so that f(x) = y holds.

INPUT

The input consists of one integer y ($1 \leq y \leq 10^9$)

OUTPUT

Output a single non-negative integer x.

Sample Input	Sample Output
3	12
20	2333