

Problem A. Perfect Number

Time limit 2000 ms

Mem limit 262144 kB

We consider a positive integer perfect, if and only if the sum of its digits is exactly 10. Given a positive integer k , your task is to find the k -th smallest perfect positive integer.

Input

A single line with a positive integer k ($1 \leq k \leq 10\,000$).

Output

A single number, denoting the k -th smallest perfect integer.

Examples

Input	Output
1	19

Input	Output
2	28

Note

The first perfect integer is 19 and the second one is 28.