B. Perfect Number

time limit per test: 2 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

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
1

output
19

input
2

output
28

Note

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