

Digits 4 and 7 are lucky, while all others are unlucky. An integer is lucky if it contains only lucky digits in decimal notation. We would like to know the **K**-th lucky positive integer.

INPUT

The first and only line of input contains a positive integer **K** ($1 \leq \mathbf{K} \leq 10^9$).

OUTPUT

The first and only line of output must contain the **K**-th lucky positive integer.

SAMPLE TESTS

input	input	input
1	2	3
output	output	output
4	7	44