

E. Lucky Interval

time limit per test: 4 seconds
memory limit per test: 512 megabytes
input: standard input
output: standard output

Petya loves lucky numbers. We all know that lucky numbers are the positive integers whose decimal representations contain only the lucky digits **4** and **7**. For example, numbers **47**, **744**, **4** are lucky and **5**, **17**, **467** are not.

One day Petya came across an interval of numbers $[a, a + l - 1]$. Let $F(x)$ be the number of lucky digits of number x . Find the minimum b ($a < b$) such, that $F(a) = F(b)$, $F(a + 1) = F(b + 1)$, ..., $F(a + l - 1) = F(b + l - 1)$.

Input

The single line contains two integers a and l ($1 \leq a, l \leq 10^9$) — the interval's first number and the interval's length correspondingly.

Output

On the single line print number b — the answer to the problem.

Examples

input
7 4
output
17

input
4 7
output
14

Note

Consider that $[a, b]$ denotes an interval of integers; this interval **includes** the boundaries. That is,