Multiples of seven P91736_en

For every natural n, let $X(n)$ be the smallest natural m such that m ends with n and m is a multiple of 7. For instance, $X(1) = 21$, $X(2) = 42$, $X(3) = 63$, ..., $X(7) = 7$, $X(8) = 28$, $X(9) = 49$, $X(10) = 210$, $X(11) = 511$, ...Let S be the infinite concatenation of $X(i)$ for every $i \geq 1$, that is, $S = 21426314355672849210511....$ Which is the i-th digit of S?

Input

Input consists of several cases, each with a natural i between 1 and 10^{15}.

Output

For every i, print the i-th digit of S (starting at one).

Sample input 1	Sample output 1
1	2
2	1
3	4
4	2
13	7
14	2
15	8
18	2
19	1
20	0
1000000000000	4
1000000000000000	5

Problem information

Author: Salvador Roura

Generation: 2026-01-25T11:55:23.676Z