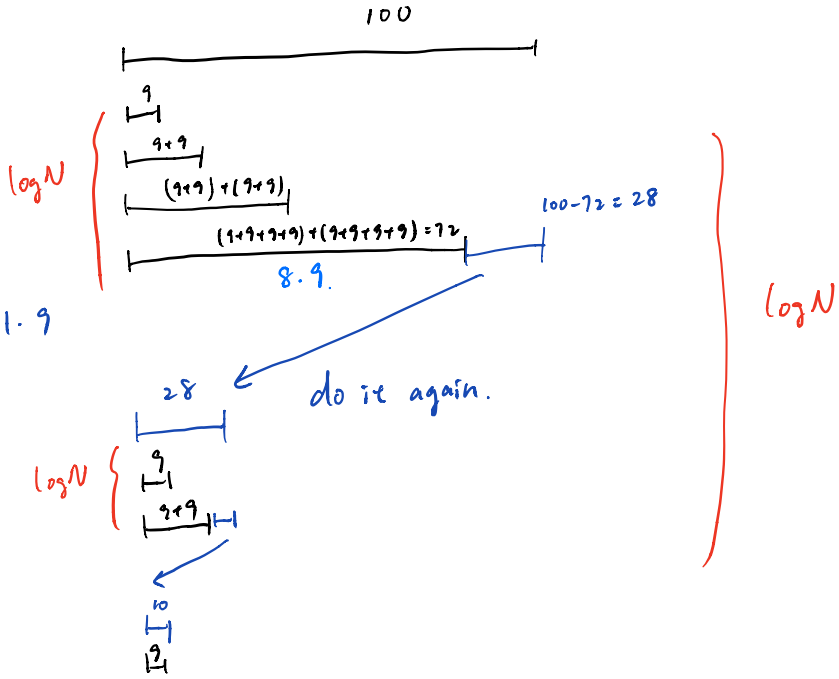
dividend = 100

divisor = 9.



$100 = 8 \cdot 9 + 2 \cdot 9 + 1 \cdot 9$

$= 11 \cdot 9$

$T = O(\log N) \cdot O(\log N)$