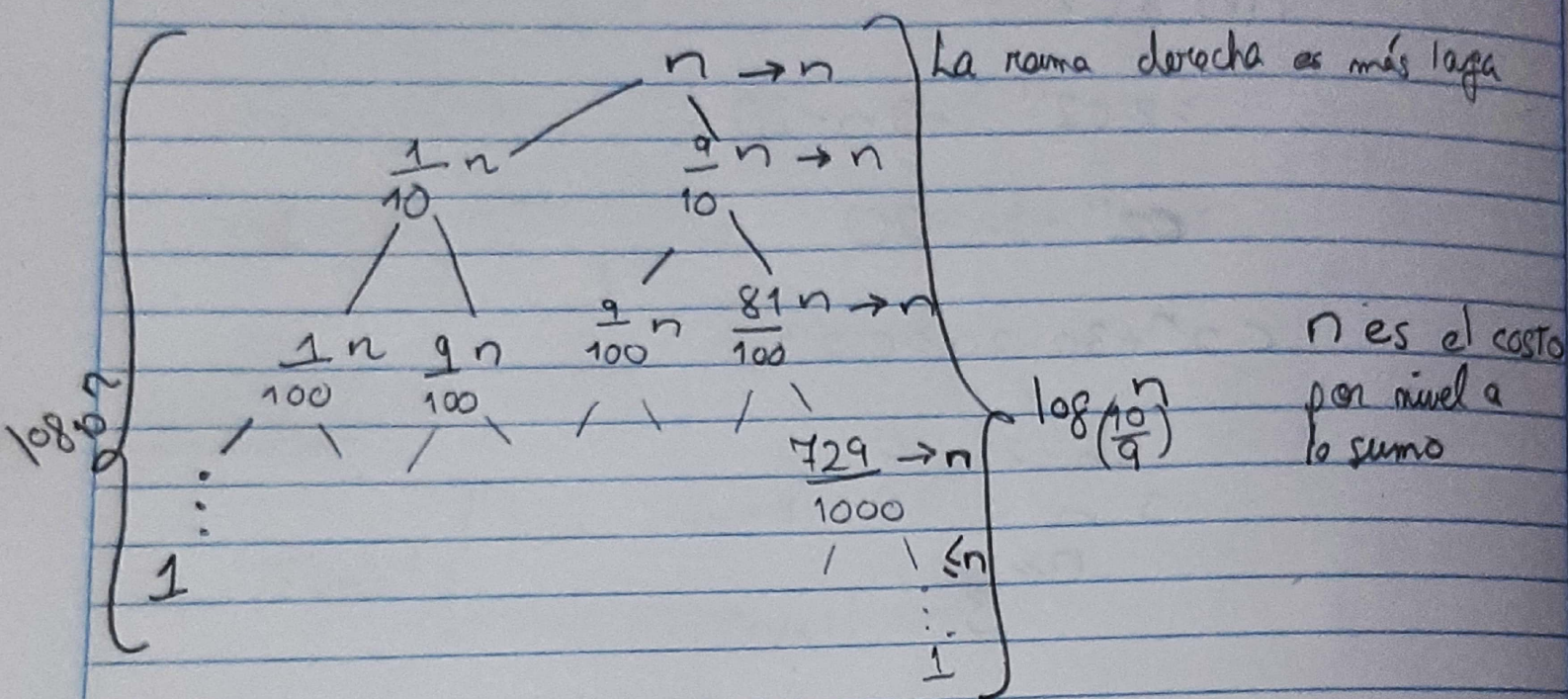


1.

$$T(n) = T(n/10) + T(\frac{9n}{10}) + \Theta(n)$$



$$\sum_{i=1}^{\log_{10} n} n = \boxed{n \log_{10} n}$$

Costo total

La rama corta funciona como lower bound y la rama larga como upper bound

$$T(n) = O(n \log_{10} n)$$

$$T(n) = \Omega(n \log_{10} n)$$