

$$\frac{8^8 \cdot 8^8}{8^8 + 8^8} = 11^x$$

$$x = ?$$



----- Q U E S T I O N -----

$$(8^8 \cdot 8^8) / (8^8 + 8^8) = 11^x$$

$$x = ?$$

----- R É P O N S E -----

$$(8^8 \cdot 8^8) / (8^8 + 8^8) = 11^x$$

$$8^{16} / 2 \cdot 8^8 = 11^x$$

$$(1/2) \cdot (8^{16} / 8^8) = 11^x$$

$$0,5 \cdot 8^8 = 11^x$$

notes:

- $0,5 = 11^{(\log[11](0,5))} = 11^{-0,28906}$

- $8 = 11^{(\log[11](8))} = 11^{0,86719}$

- donc $0,5 \cdot 8^8 = 11^x$ devient:

$$11^{-0,28906} \cdot 11^{0,86719 \cdot 8} = 11^x$$

$$11^{-0,28906} \cdot 11^{(0,86719 \cdot 8)} = 11^x$$

$$11^{-0,28906} \cdot 11^{6,93752} = 11^x$$

$$11^{(-0,28906 + 6,93752)} = 11^x$$

$$11^{(6,64846)} = 11^x$$

même base (= 11), donc:

$$6,64846 = x$$

$$\begin{array}{c} \text{-----} \\ | \quad x \approx 6,64846 \quad | \\ \text{-----} \end{array}$$

vérification:

$$(8^8 \cdot 8^8) / (8^8 + 8^8) = 8\,388$$

$$11^{6,64846} = 8\,387$$

