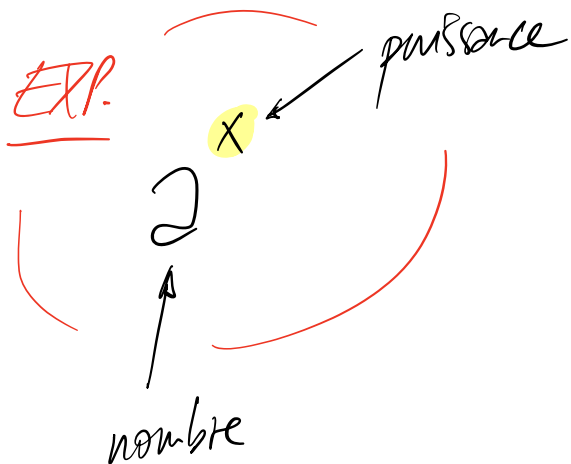
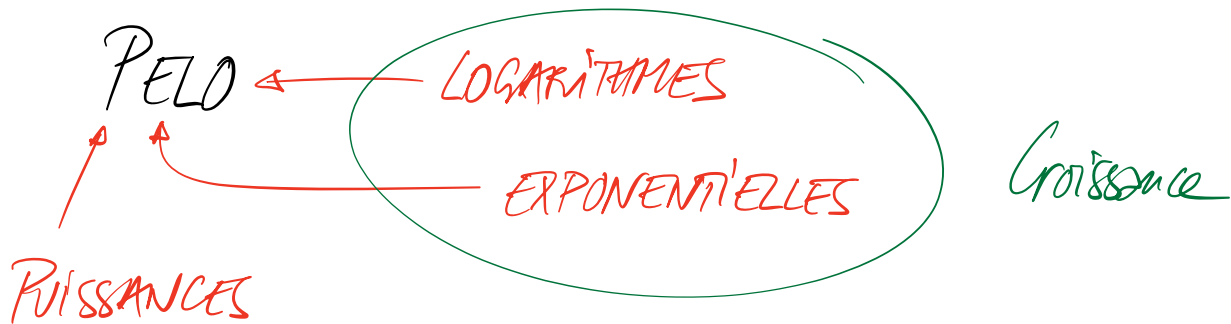




$$3^2 = 3 \cdot 3$$

$$3^4 = 3 \cdot 3 \cdot 3 \cdot 3$$

$$3^{1.5} = 3^{\frac{3}{2}} = \sqrt[2]{3^3}$$

$$2^{\frac{m}{n}} = \sqrt[n]{2^m} = \sqrt[2]{27}$$

3^0	1
$3^{\frac{1}{2}}$	$\sqrt{3} \approx 1,73$
3^1	3
$3^{\sqrt{2}}$	$\approx 4,728$
3^2	9

$$3^{\frac{1}{2}} = \sqrt{3}$$

3^x	=	13
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EXP.

3^3 27

$$3^x = 13$$

Quelle puissance?

$$x = \log_3 13 = \frac{\log 13}{\log 3}$$

$$= \frac{\ln 13}{\ln 3}$$

LOGARITHME

Formule

$$\log_2 6 = \frac{\log 6}{\log 2} = \frac{\ln 6}{\ln 2}$$

Equations

$$2^x = 2^y \Leftrightarrow x = y$$

$$2^x = u \Leftrightarrow x = \log_2 u$$

$$4^x = 2^{1-x} \Leftrightarrow (2^2)^x = 2^{1-x}$$

$$\Leftrightarrow 2^{2x} = 2^{1-x}$$

$$2^x = 2^{\frac{1-x}{2}}$$

$$4^{\frac{1}{3}} = 2^{1-\frac{1}{3}} \checkmark$$

$\Leftrightarrow$

$$\begin{aligned} x &= y \\ 2x &= 1-x \\ 3x &= 1 \quad \downarrow +x \\ x &= \frac{1}{3} \quad \downarrow \div 3 \end{aligned}$$

$$2^{2x} = 2^{1-x}$$

$$2^x = 2^y \Leftrightarrow x = y$$

$$2x = 1-x$$

$$2^{x^2-1} = 3 = 2^{\log_2 3}$$

$$2^x = u \Leftrightarrow x = \log_2 u$$

$$x^2-1 = \log_2 3 = \frac{\ln 3}{\ln 2}$$

$$x^2-1 \approx 1.585$$

$$x^2 = 2.585$$

$$x = \pm \sqrt{2,585}$$

$$x = \pm 1,61$$