Exponentielles

Logarithmes

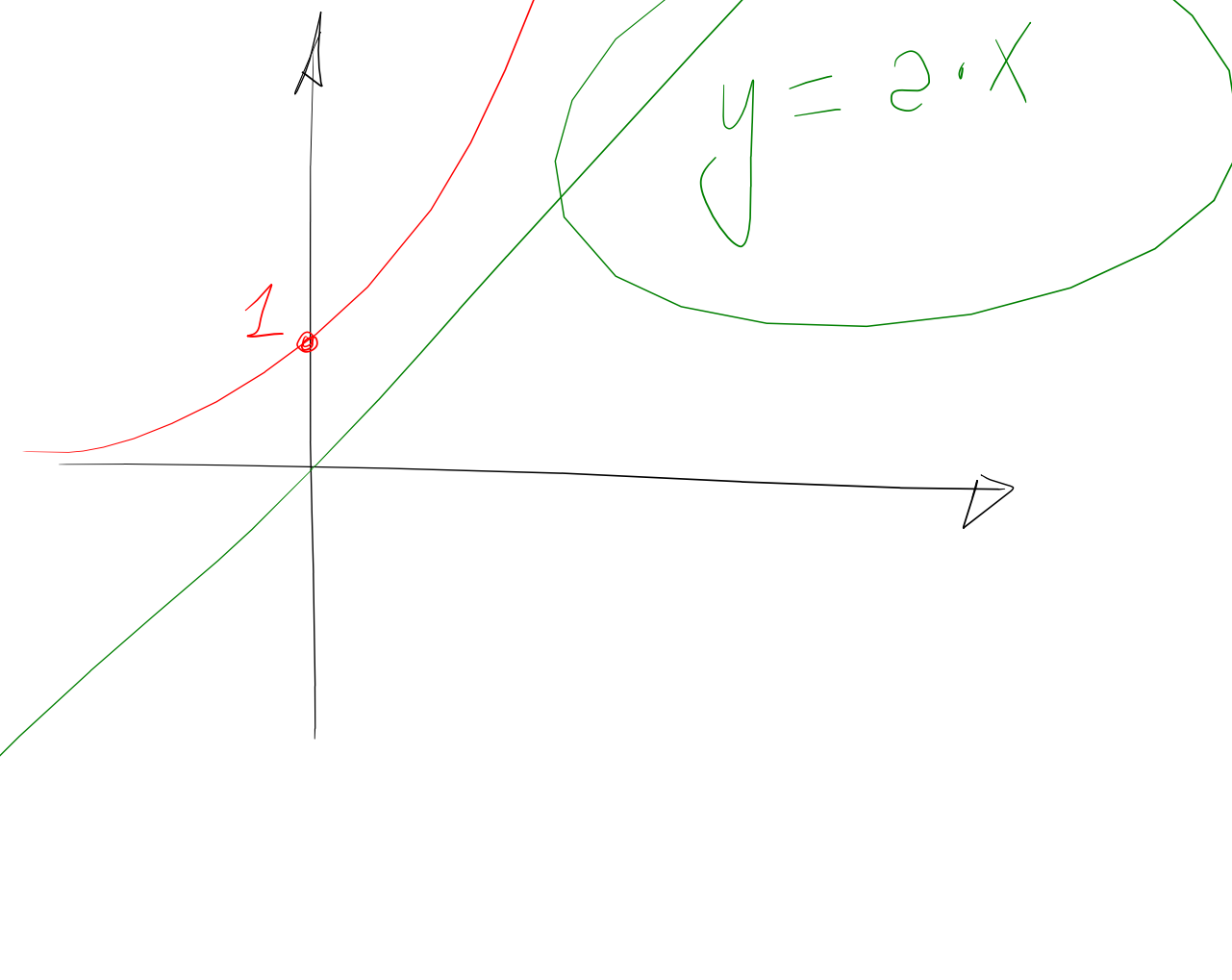
Croissance exponentielle

$a > 0$

2^x exposant.

base

$x \in \mathbb{R}$



1	0
2	1
4	2
8	3
16	4
32	5

2^x

$2^{1.7} = 2^{\frac{17}{10}} = \sqrt[10]{2^{17}}$

$2^{\sqrt{2}}$

2^x

$3^x = 3^{x+2} \Leftrightarrow x = x+2$

$\Leftrightarrow 0 = 2$

$3^x = 3^y \Leftrightarrow x = y$

Pas de solutions

$x+3 = 1-x$

$x^2+4x+2 = 0$

$x^3 - x - 1 = 0$

$\cos x = \frac{1}{2}$

$2^{1-x} = 2^{x+1} \Leftrightarrow 1-x = x+1 \Leftrightarrow 2x = 0$ $x = 0$ ✓

$$9^{x^2} = (3^2)^{x^2} = 3^{2 \cdot x^2}$$

$$(2^m)^n = 2^{m \cdot n}$$

$$3^4 = 9^2$$

$$9^{x^2} \rightsquigarrow 3^x$$

$$\sqrt{3}^{\sqrt{4}} \doteq \sqrt{9}^{\sqrt{2}}$$