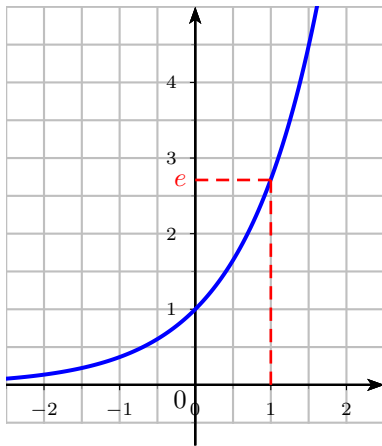


La fonction $\exp$: exponentielle



$\exp(x)$ se note aussi e^x

$$e^0 = 1 \quad e = e^1 \approx 2,72$$

$$e^{-1} \approx 0,37$$

$$e^A \times e^B = e^{A+B}$$

$$e^{-A} = \frac{1}{e^A}$$

$$\frac{e^A}{e^B} = e^{A-B}$$

$$\lim_{x \rightarrow -\infty} e^x = 0_+$$

$$\lim_{x \rightarrow +\infty} e^x = +\infty$$

Pour tout $n \in \mathbb{N}$,

$$\lim_{x \rightarrow +\infty} \frac{e^x}{x^n} = +\infty$$

$$\lim_{x \rightarrow -\infty} x^n e^x = 0$$

$$(e^x)' = e^x$$

$$(e^u)' = u' \times e^u$$