$$\{x \in \mathbb{R}, x \geq 1\} = \{y \in \mathbb{R}, y \geq 1\}$$

muette muette

$$\lim_{t \to +\infty} \exp(-t) = \lim_{u \to +\infty} \exp(-u)$$

$$\sum_{k=1}^{5} k = 1+2+3+4+5 \quad , \quad \sum_{k=0}^{n} k = \frac{n(n+1)}{2}$$

$$\sum_{k=1}^{5} k = \sum_{i=1}^{5} i$$

$$\prod_{i=1}^{4} i = 1 \times 2 \times 3 \times 4 = 4!$$

factorielle

$$n! = 1 \times 2 \times 3 \times \dots \times (n-1) \times n$$

Représentation graphique

f est bornée :

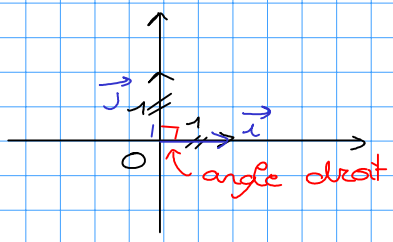
- f est majorée : $\exists M \in \mathbb{R} \quad \forall x \in \mathbb{R} \quad f(x) \leq M$
- f est minorée : $\exists m \in \mathbb{R} \quad \forall x \in \mathbb{R} \quad f(x) \geq m$

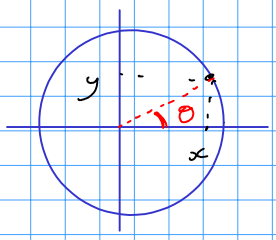
Donc $\exists M \in \mathbb{R} \; \exists m \in \mathbb{R} \quad \forall x \in \mathbb{R} \quad m \leq f(x) \leq M$.

Si f est impaire,

$f(0) = 0$: $f(0) = f(-0) \overset{f \text{ est impaire}}{=} -f(0)$

donc $f(0) = 0$.



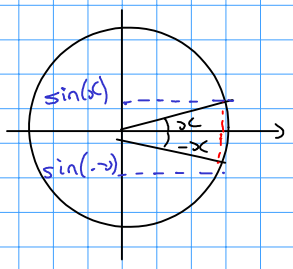


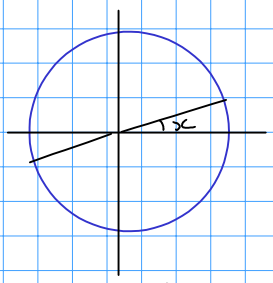
$x^2+y^2=1$

$x=\cos(\theta)$

$y=\sin(\theta)$

Théorème de Thalès.





Si n est pair

$\cos(x+n\pi)=\cos(x)$

Si n est impair,

$\cos(x+n\pi)=-\cos(x)$

$\cos(x+\pi)=-\cos(x)$

$\cos(x+2\pi)=\cos(x)$

$\cos(x+3\pi)=-\cos(x)$

$n=2p+1$, $\cos(x+n\pi)=\cos(x+\pi+2p\pi)$