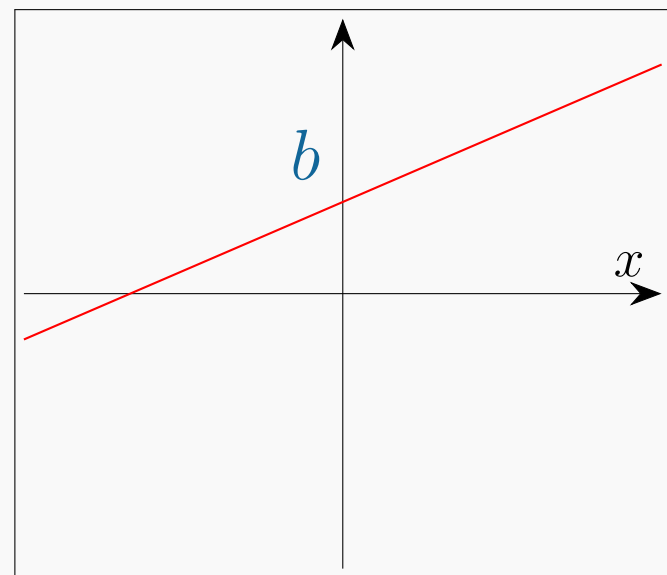
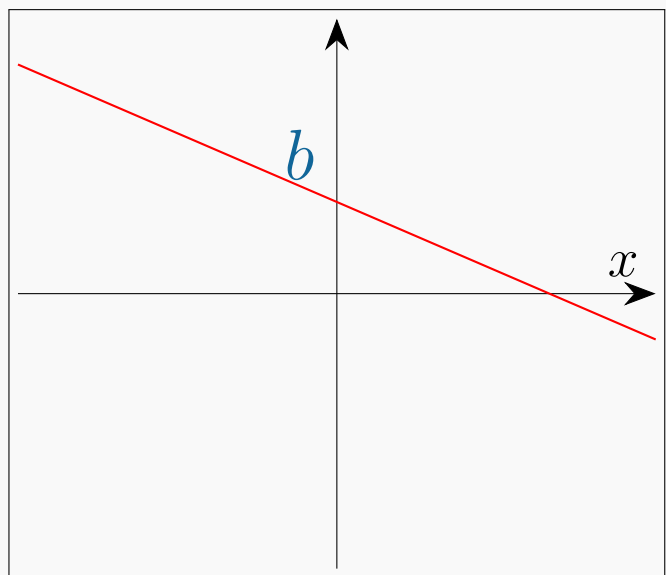


# FONCTIONS DE RÉFÉRENCE

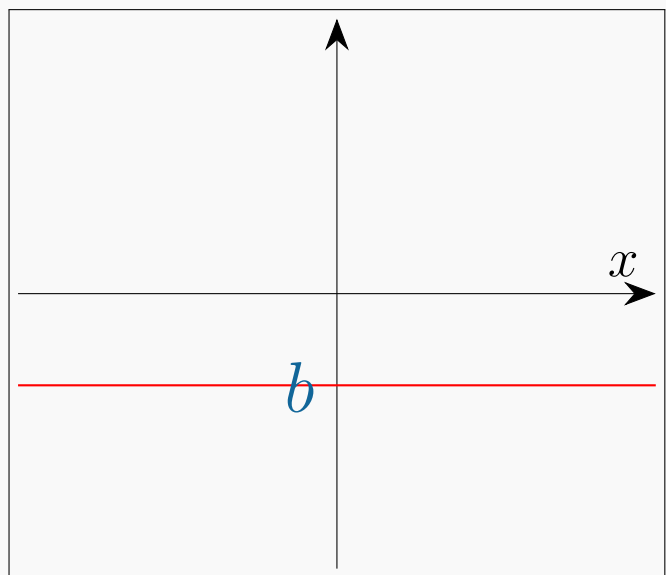
## Fonctions affines $x \mapsto ax + b$



Cas  $a > 0$



Cas  $a < 0$



Cas  $a = 0$

$$x_1 = \frac{-b - \sqrt{\Delta}}{2a} \text{ et } x_2 = \frac{-b + \sqrt{\Delta}}{2a}$$

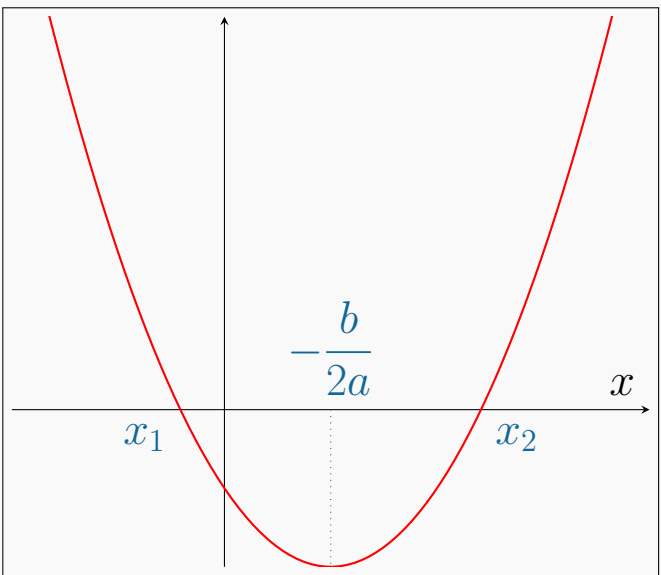
$$f(x) = a(x - x_1)(x - x_2)$$

## Fonctions polynômes de degré 2

$$f : x \mapsto ax^2 + bx + c$$

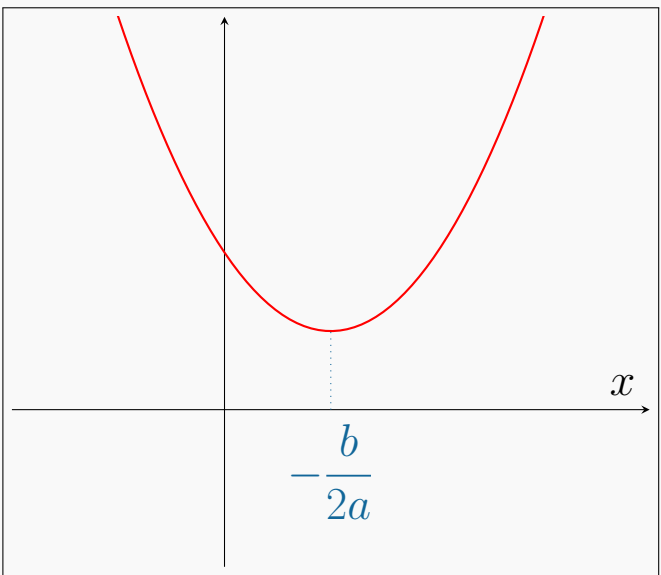
Cas  $\Delta > 0$

Deux racines  $x_1$  et  $x_2$



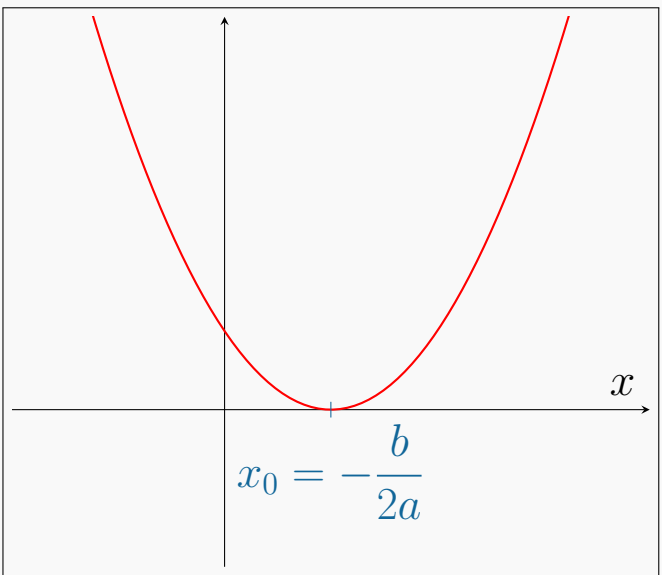
Cas  $\Delta < 0$

Aucune racine

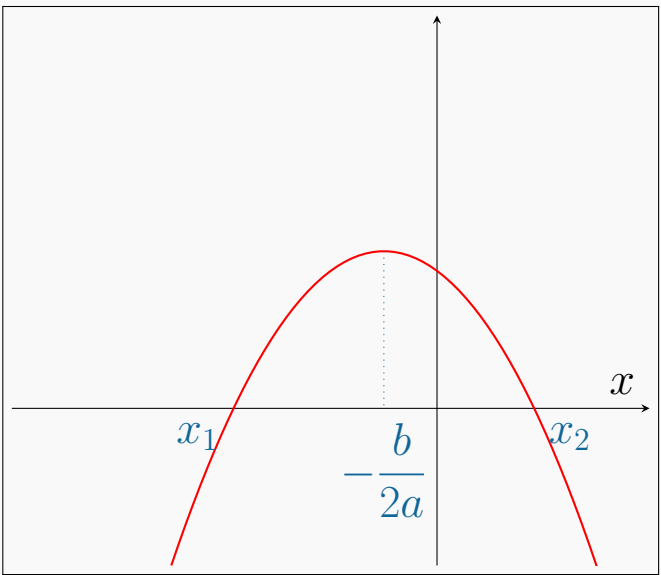


Cas  $\Delta = 0$

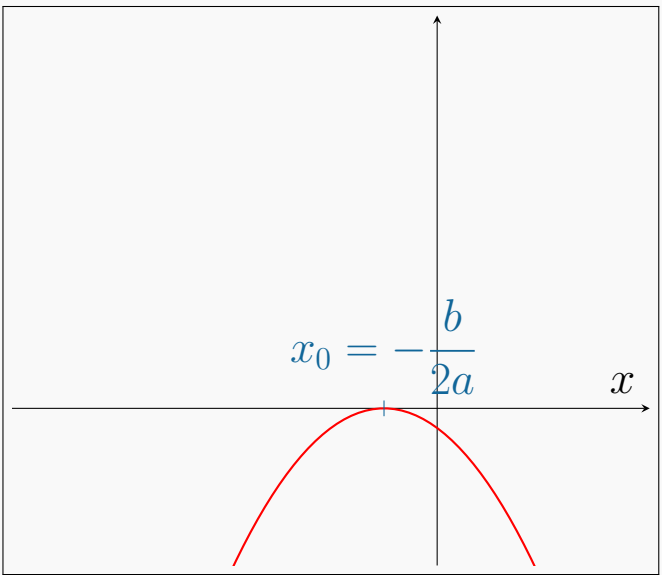
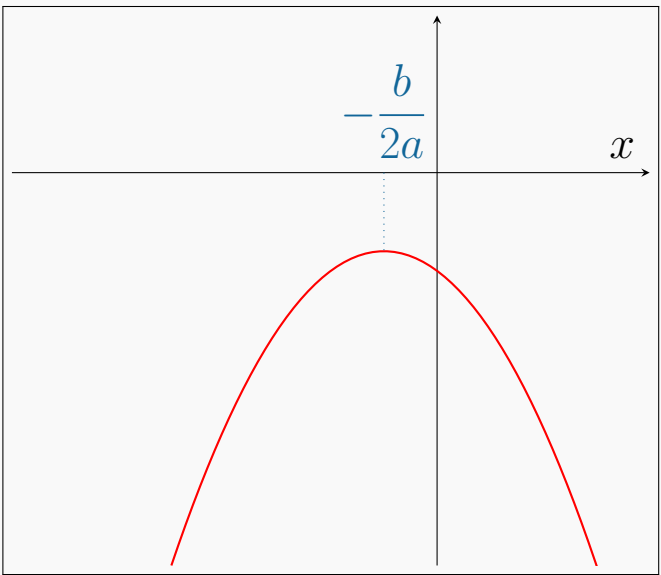
Une seule racine  $x_0$



Cas  $a > 0$

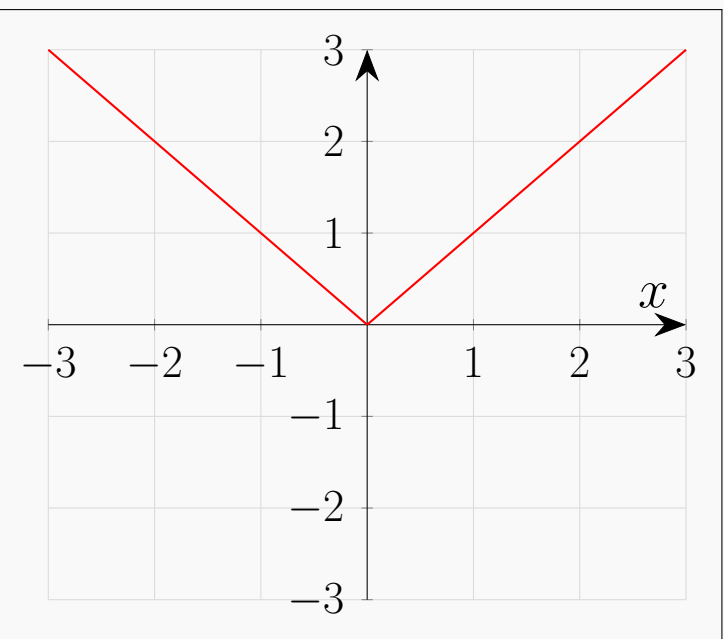


Cas  $a < 0$



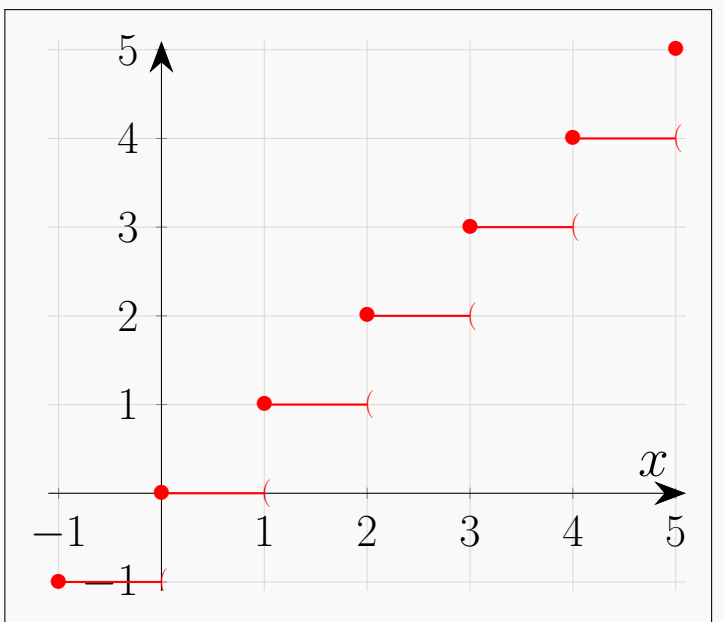
## Fonction valeur absolue

$$x \mapsto |x|$$



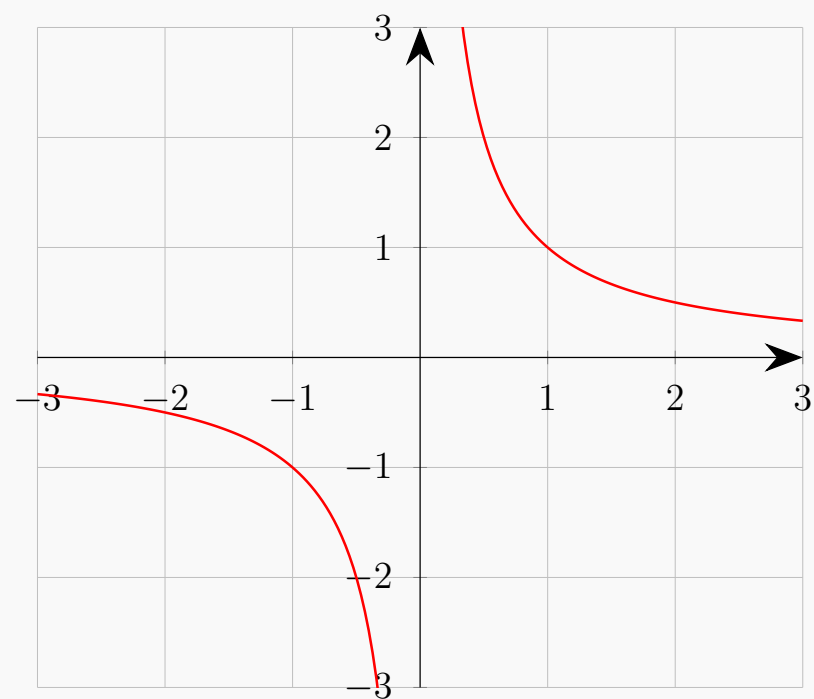
## Fonction partie entière

$$x \mapsto \lfloor x \rfloor$$

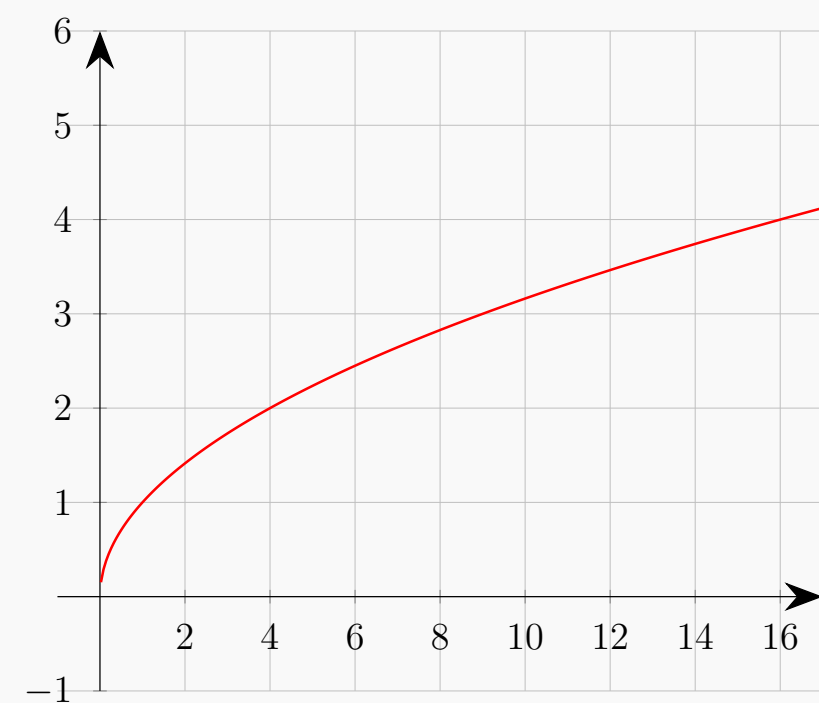


# FONCTIONS DE RÉFÉRENCE (2)

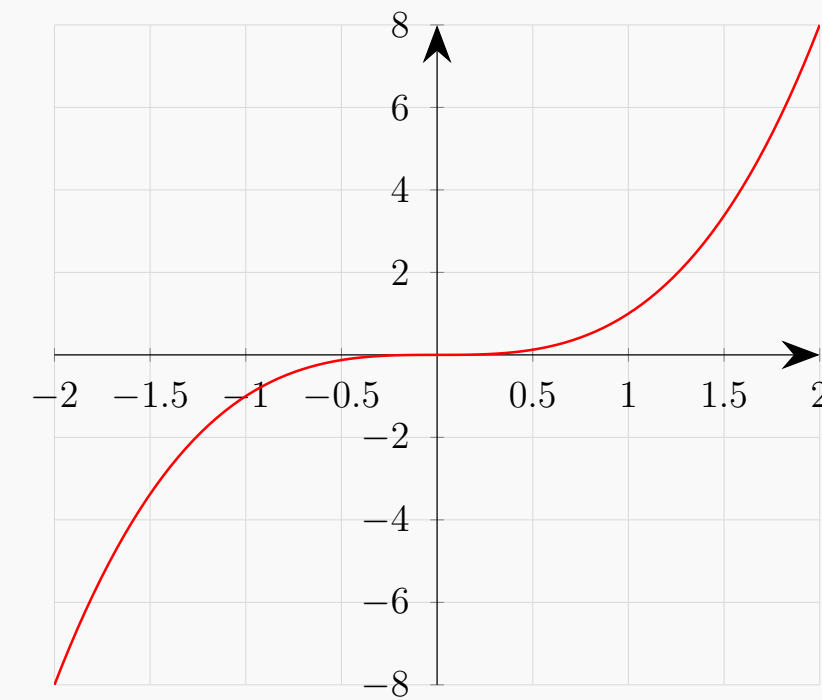
**Fonction inverse**  $x \mapsto \frac{1}{x}$



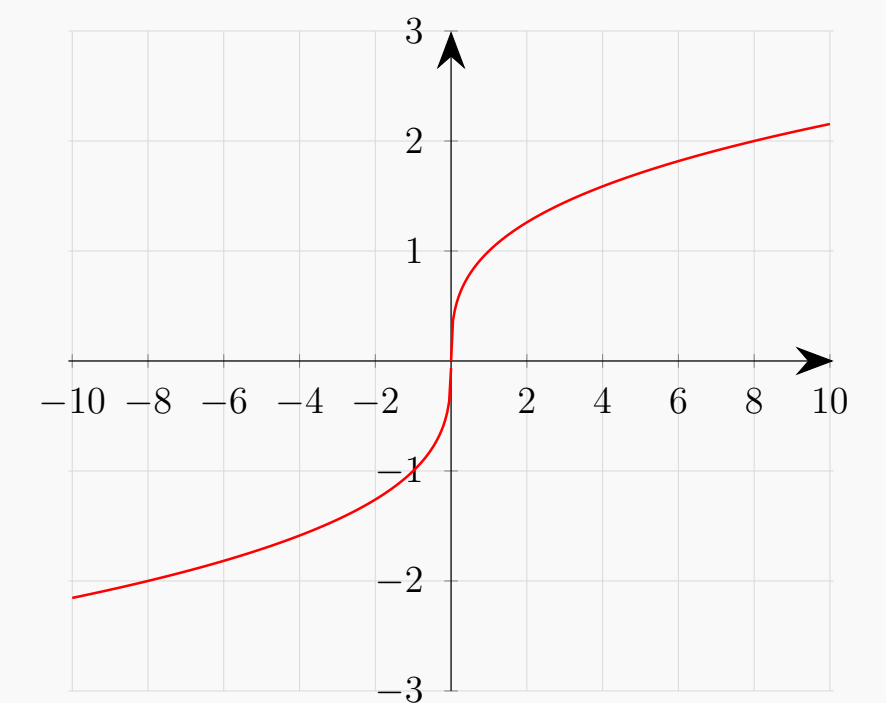
**Fonction racine carrée**  
 $x \mapsto \sqrt{x}$



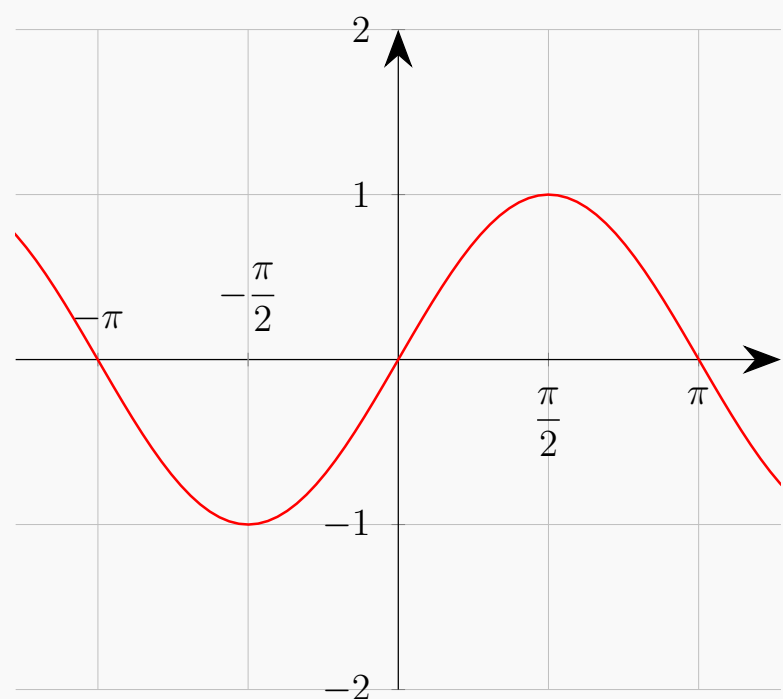
**Fonction cube**  $x \mapsto x^3$



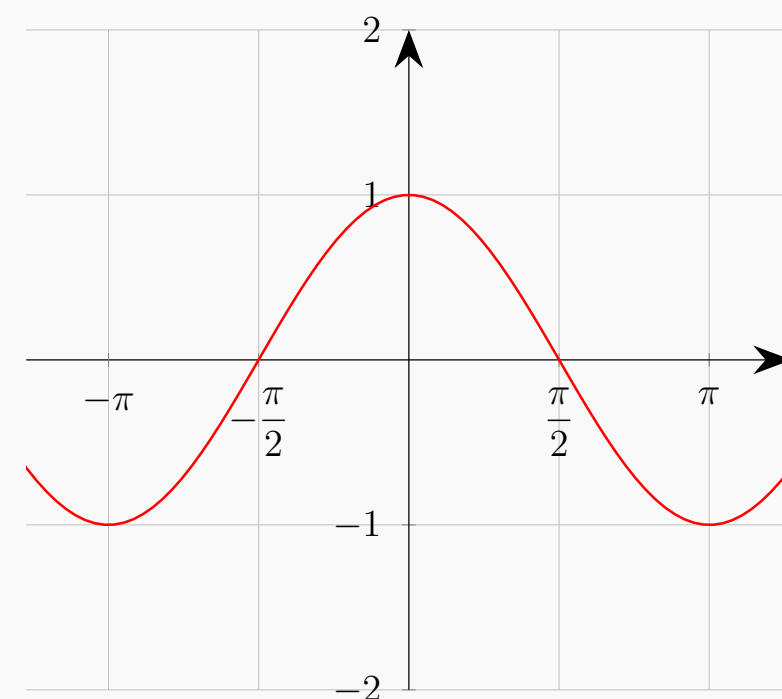
**Fonction racine cubique**  $x \mapsto \sqrt[3]{x}$



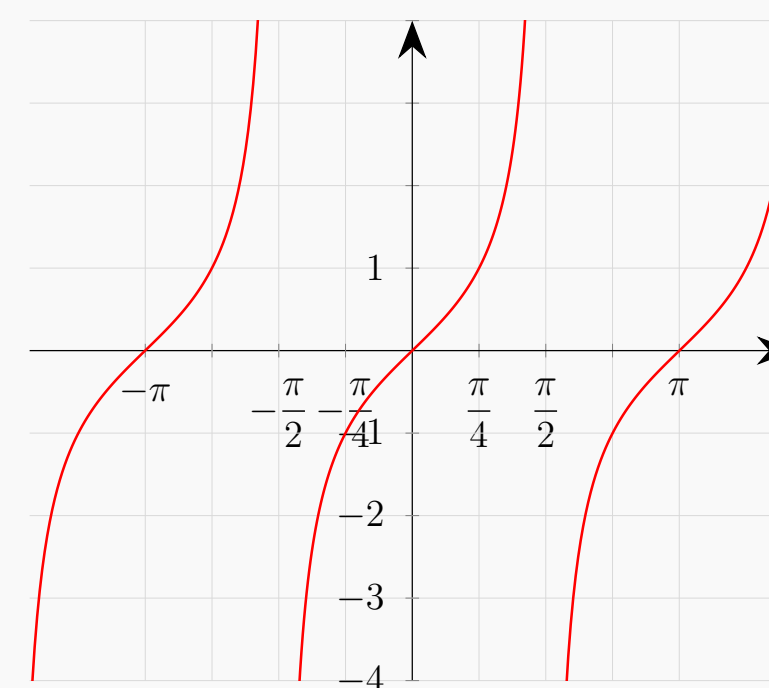
**Fonction sinus**  $x \mapsto \sin x$



**Fonction cosinus**  
 $x \mapsto \cos x$



**Fonction tangente**  
 $x \mapsto \tan x = \frac{\sin x}{\cos x}$



**Fonction arctangente**  
 $x \mapsto \arctan x$

