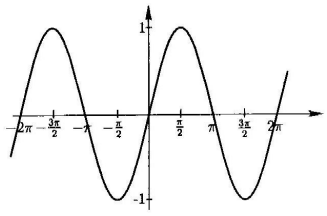
Funções trigonométricas (directas)

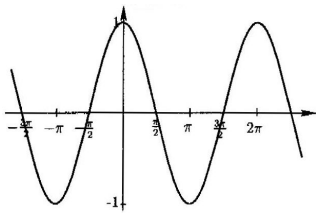
Seno

$y = \operatorname{sen} x, \qquad x \in \mathbb{R}, \quad CD_{\operatorname{sen}} = [-1, 1]$



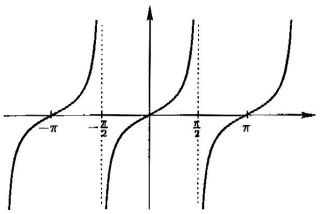
Cosseno

$y = \cos x, \qquad x \in \mathbb{R}, \quad CD_{\cos} = [-1, 1]$



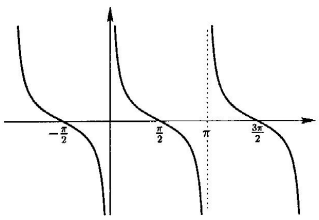
Tangente

$y = \operatorname{tg} x, \qquad x \in \mathbb{R} \setminus \{\frac{\pi}{2} + k\pi,\, k \in \mathbb{Z}\}, \qquad CD_{\operatorname{tg}} = \mathbb{R}$



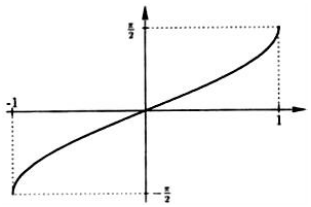
Cotangente

$y = \operatorname{cotg} x, \qquad x \in \mathbb{R} \setminus \{k\pi,\, k \in \mathbb{Z}\}, \qquad CD_{\operatorname{cotg}} = \mathbb{R}$



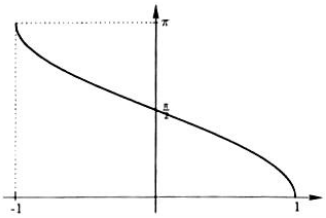
Arco-seno

Inversa da restrição do seno a $[-\frac{\pi}{2}, \frac{\pi}{2}]$



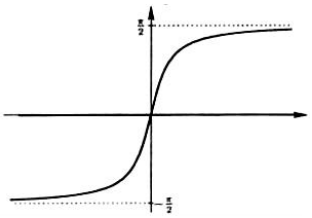
Arco-cosseno

Inversa da restrição do cosseno a $[0, \pi]$



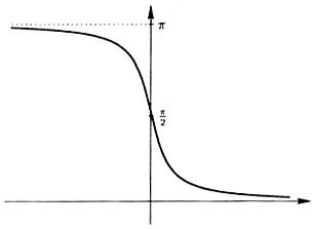
Arco-tangente

Inversa da restrição da tangente a $]-\frac{\pi}{2}, \frac{\pi}{2}[$



Arco-cotangente

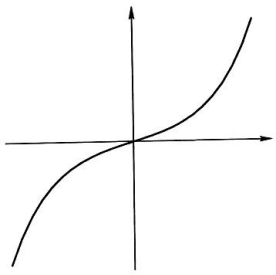
Inversa da restrição da cotangente a $]0, \pi[$



Funções hiperbólicas

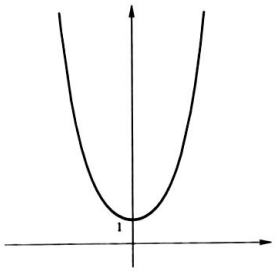
Seno hiperbólico

$$\operatorname{sh} x = \frac{e^x - e^{-x}}{2}, \quad x \in \mathbb{R}, \quad CD = \mathbb{R}$$



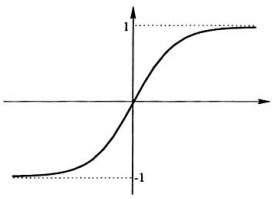
Cosseno hiperbólico

$$\operatorname{ch} x = \frac{e^x + e^{-x}}{2}, \quad x \in \mathbb{R}, \quad CD = [1, +\infty[$$



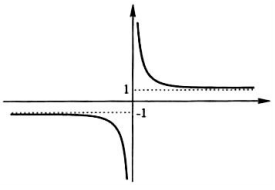
Tangente hiperbólica

$$\operatorname{th} x = \frac{e^x - e^{-x}}{e^x + e^{-x}}, \quad x \in \mathbb{R}, \quad CD =]-1, 1[$$



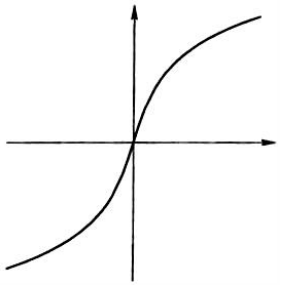
Cotangente hiperbólica

$$\operatorname{coth} x = \frac{e^x + e^{-x}}{e^x - e^{-x}}, \quad x \in \mathbb{R}\backslash\{0\}, \quad CD = \mathbb{R}\backslash[-1, 1]$$



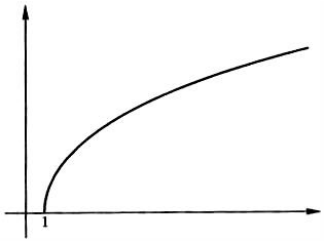
Argumento do seno hiperbólico

Inversa do seno hiperbólico



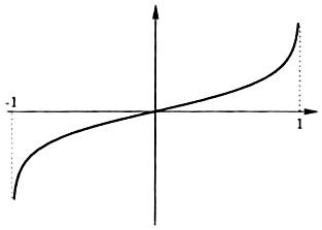
Argumento do cosseno hiperbólico

Inversa da restrição do cosseno hiperbólico a $[0, +\infty[$



Argumento da tangente hiperbólica

Inversa da tangente hiperbólica



Argumento da cotangente hiperbólica

Inversa da cotangente hiperbólica