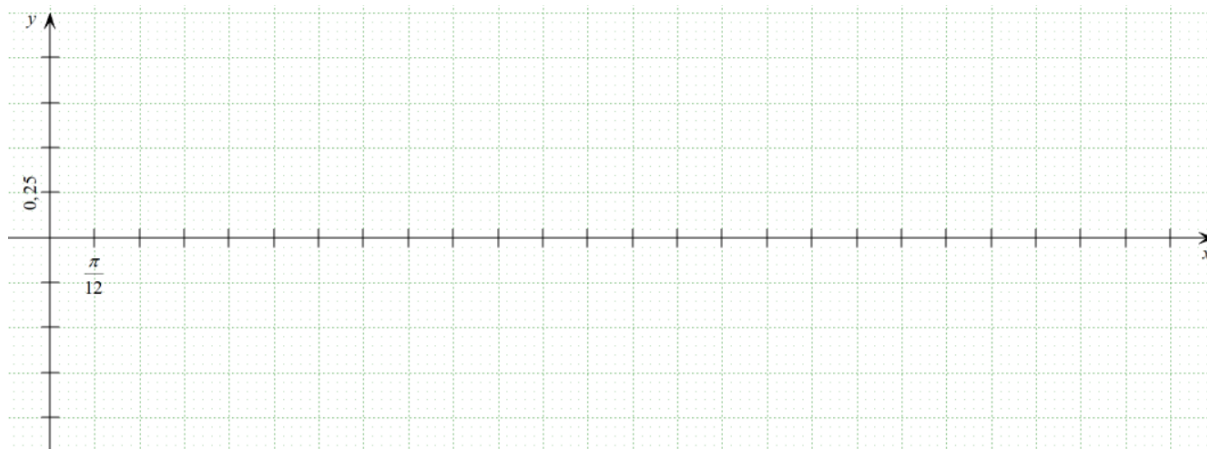


FUNCIONES TRIGONOMÉTRICAS DIRECTAS

Función seno: $y = \text{sen } x$ $x \in [0, 2\pi]$ (en radianes)

x	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y													

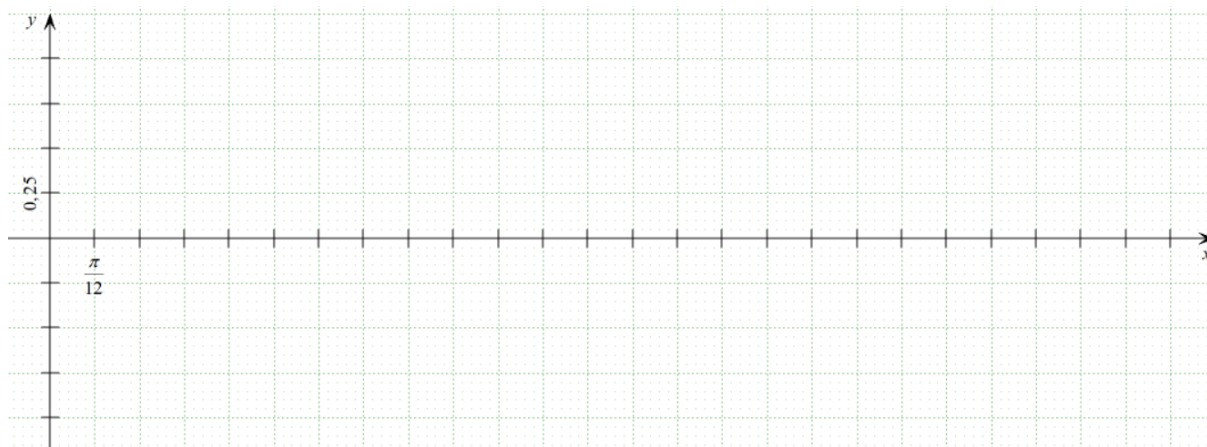
x	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y												



Función coseno: $y = \text{cos } x$ $x \in [0, 2\pi]$ (en radianes)

x	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y													

x	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y												

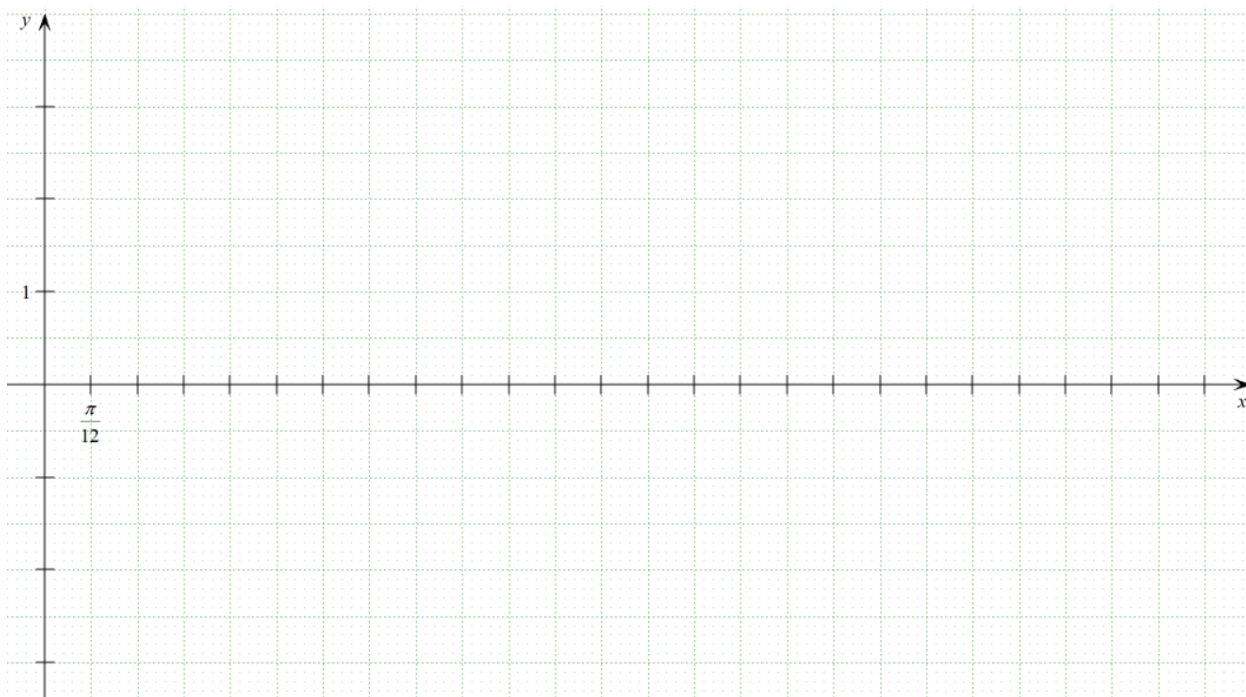


Función tangente: $y = \operatorname{tg} x$

Completa la siguiente tabla ($x \in [0, 2\pi] - \left\{ \frac{\pi}{2}, \frac{3\pi}{2} \right\}$ viene dada en radianes), con dos decimales.

x	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y							∞						

x	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y						∞						

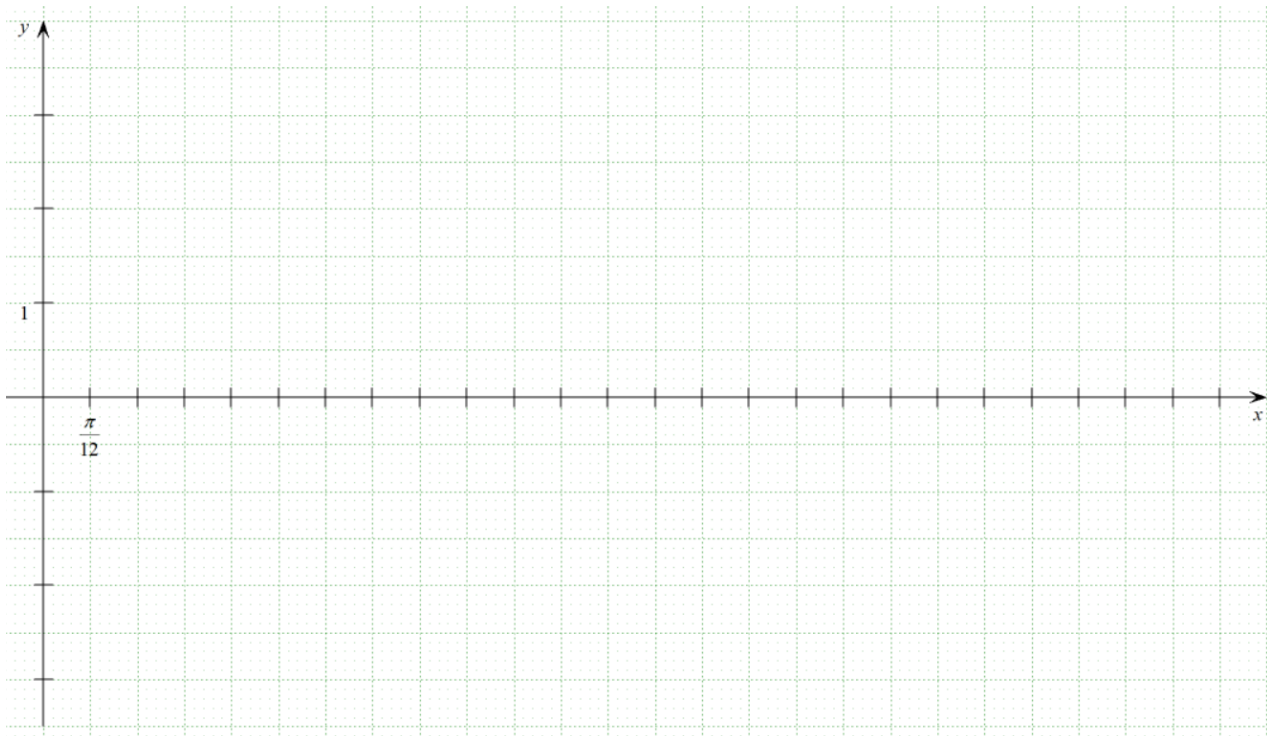


Función cosecante: $y = \operatorname{cosec} x = \frac{1}{\operatorname{sen} x}$

Completa la siguiente tabla ($x \in (0, 2\pi) - \{\pi\}$ viene dada en radianes), con dos decimales.

x	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y	∞												∞

x	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y												∞



Función secante: $y = \sec x = \frac{1}{\cos x}$ $x \in [0, 2\pi] - \left\{ \frac{\pi}{2}, \frac{3\pi}{2} \right\}$ (en radianes)

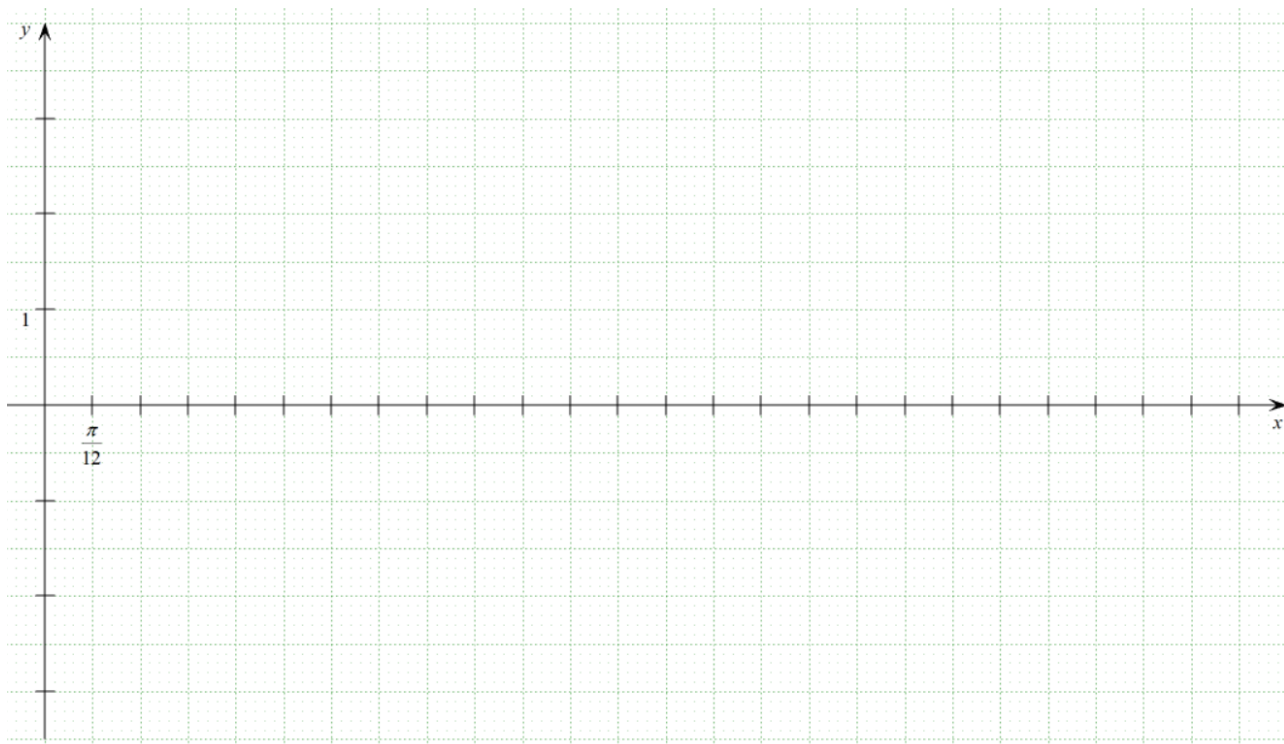
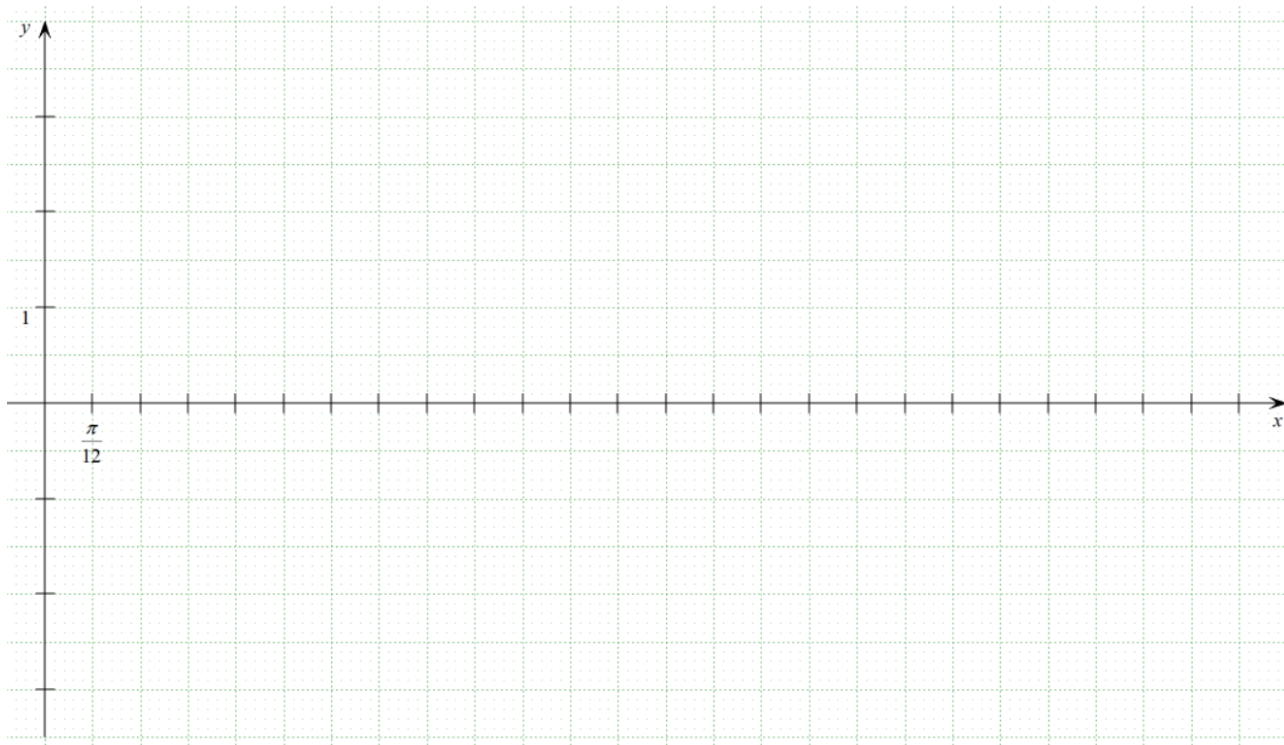
x	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°
	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y							∞						

x	195°	210°	225°	240°	255°	270°	285°	300°	315°	330°	345°	360°
	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y						∞						

Función cotangente: $y = \cotg x = \frac{1}{\tg x}$ $x \in (0, 2\pi) - \left\{ \frac{\pi}{2}, \frac{3\pi}{2} \right\}$

x	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y	∞						∞						∞

x	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y						∞						∞

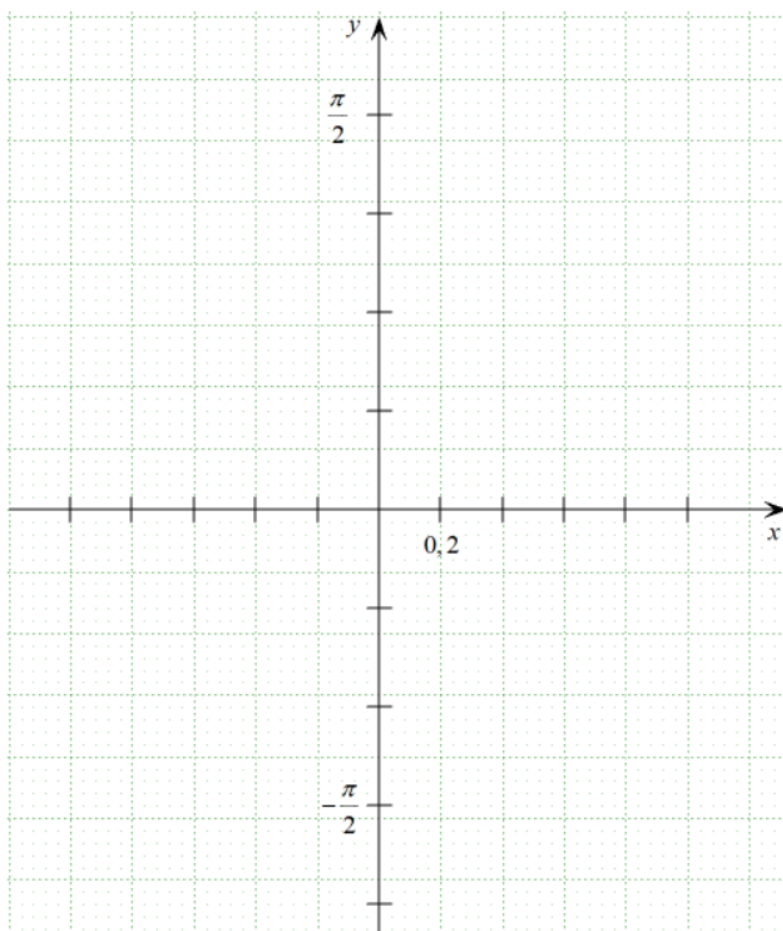


FUNCIONES TRIGONOMÉTRICAS INVERSAS

Función arcoseno: $y = \arcsen x$

Completa la siguiente tabla, con $x \in [-1,1]$ e $y \in \left[-\frac{\pi}{2}, \frac{\pi}{2}\right]$.

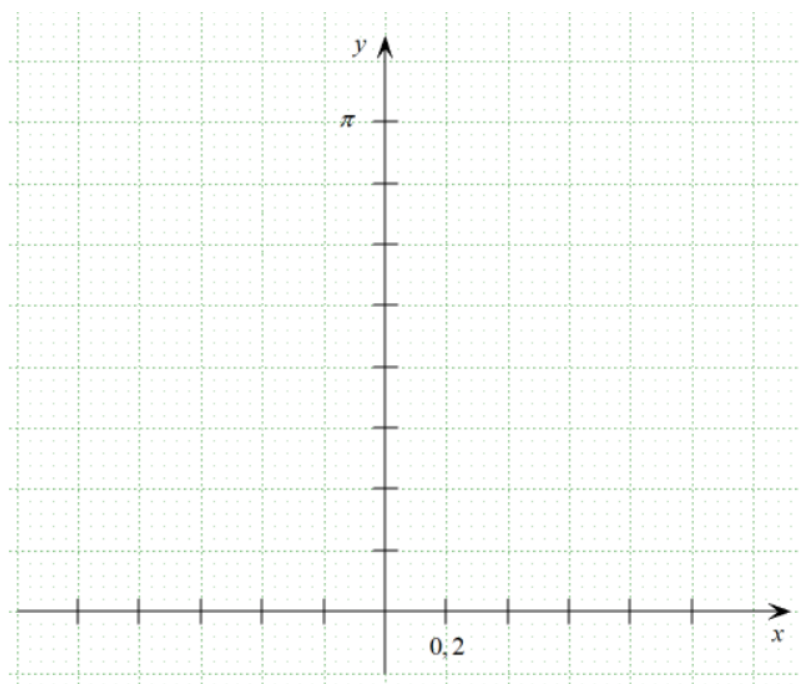
x	-1	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{1}{2}$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
y									



Función arcocoseno: $y = \arccos x$

Completa la siguiente tabla, con $x \in [-1,1]$ e $y \in [0, \pi]$.

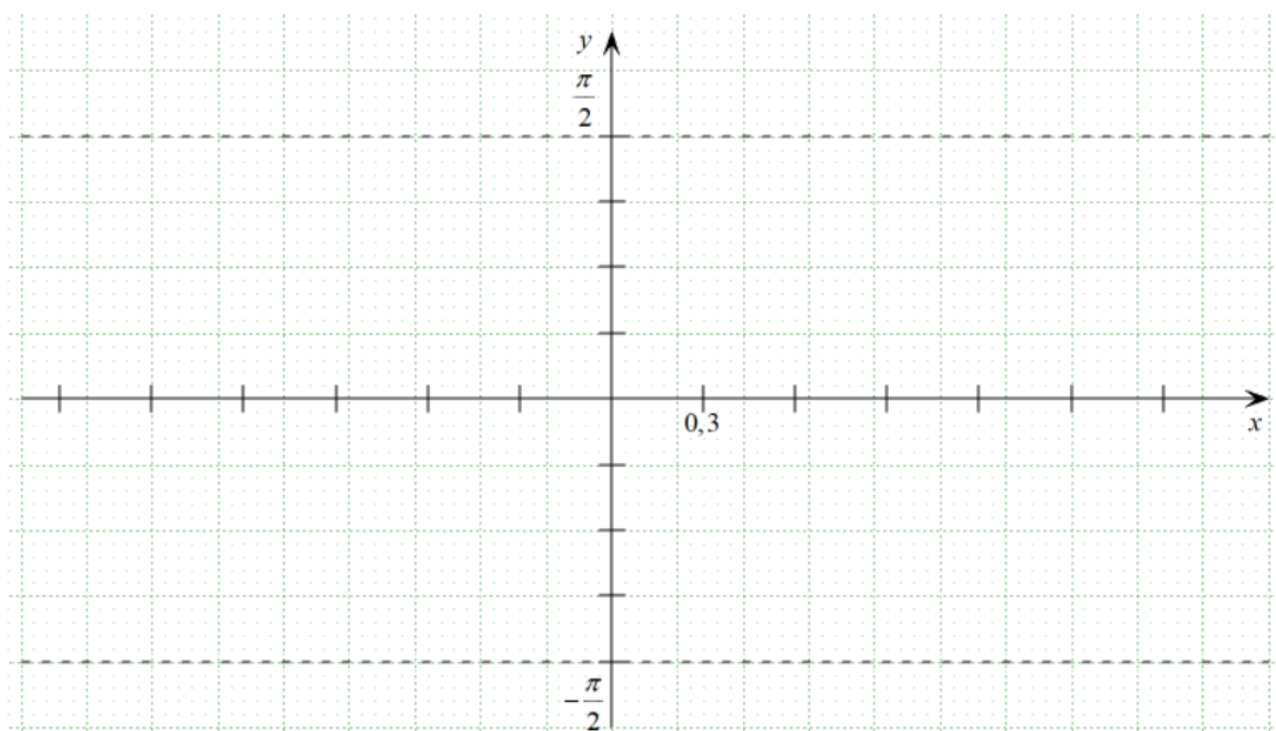
x	-1	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{1}{2}$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
y									



Función arcotangente: $y = \operatorname{arctg} x$

Completa la siguiente tabla, con $x \in \mathbb{R}$ e $y \in \left(-\frac{\pi}{2}, \frac{\pi}{2}\right)$.

x	$-\infty$	$-\sqrt{3}$	-1	$-\frac{\sqrt{3}}{3}$	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	$+\infty$
y									



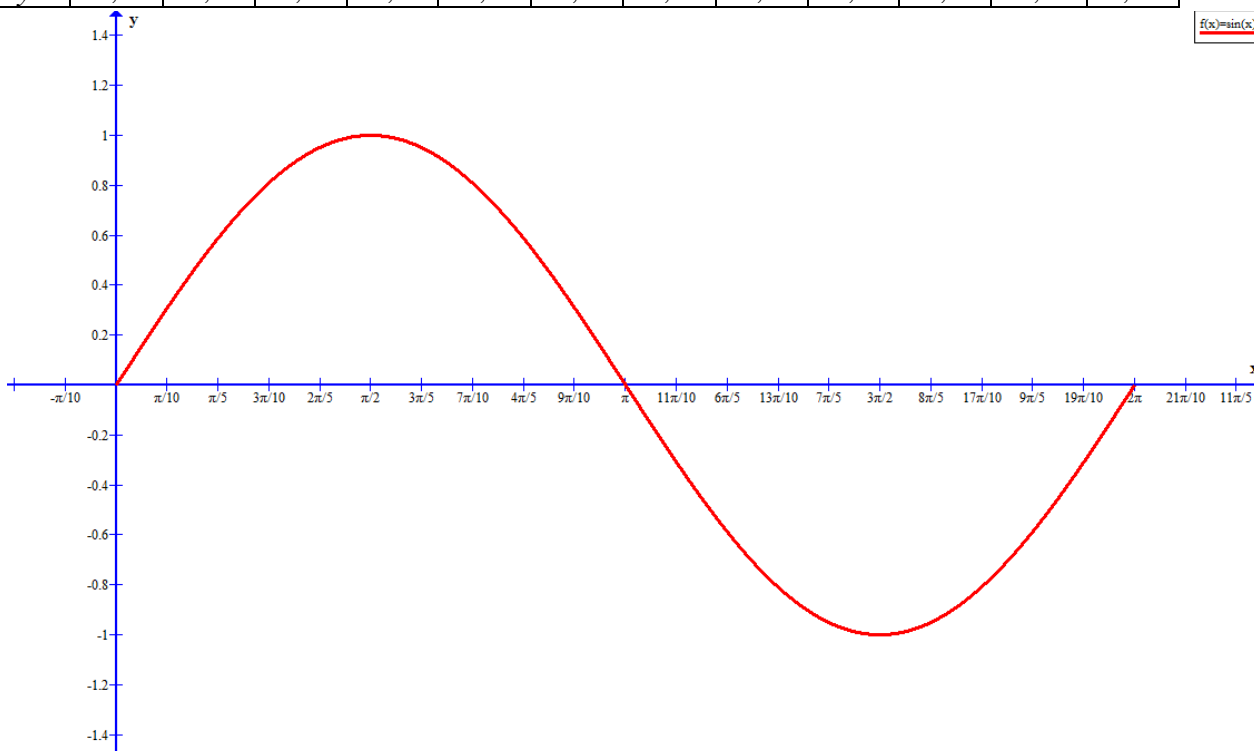
FUNCIONES TRIGONOMÉTRICAS DIRECTAS

Función seno: $y = \text{sen } x$

Completa la siguiente tabla (x viene dada en grados sexagesimales y en radianes), con dos decimales.

x	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°
	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y	0,00	0,26	0,50	0,71	0,87	0,97	1,00	0,97	0,87	0,71	0,50	0,26	0,00

x	195°	210°	225°	240°	255°	270°	285°	300°	315°	330°	345°	360°
	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y	-0,26	-0,50	-0,71	-0,87	-0,97	-1,00	-0,97	-0,87	-0,71	-0,50	-0,26	0,00

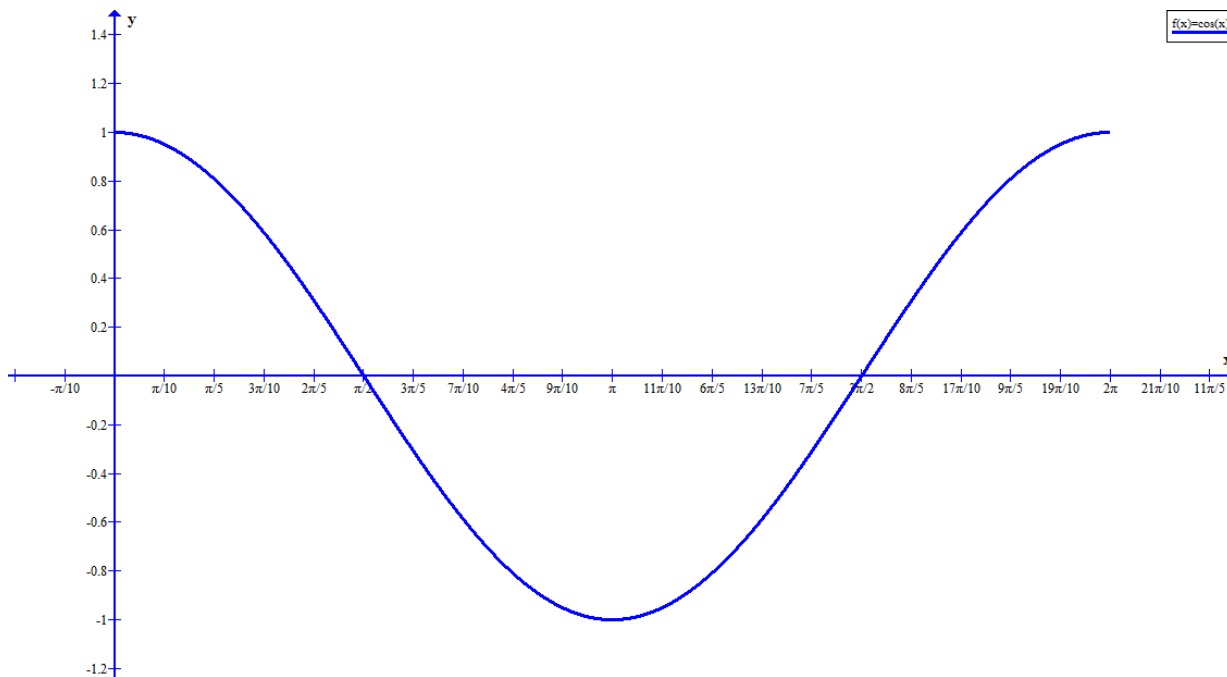


Función coseno: $y = \text{cos } x$

Completa la siguiente tabla (x viene dada en grados sexagesimales y en radianes), con dos decimales.

x	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°
	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y	1,00	0,97	0,87	0,71	0,50	0,26	0,00	-0,26	-0,50	-0,71	-0,87	-0,97	-1,00

x	195°	210°	225°	240°	255°	270°	285°	300°	315°	330°	345°	360°
	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y	-0,97	-0,87	-0,71	-0,50	-0,26	0,00	0,26	0,50	0,87	0,87	0,97	1,00

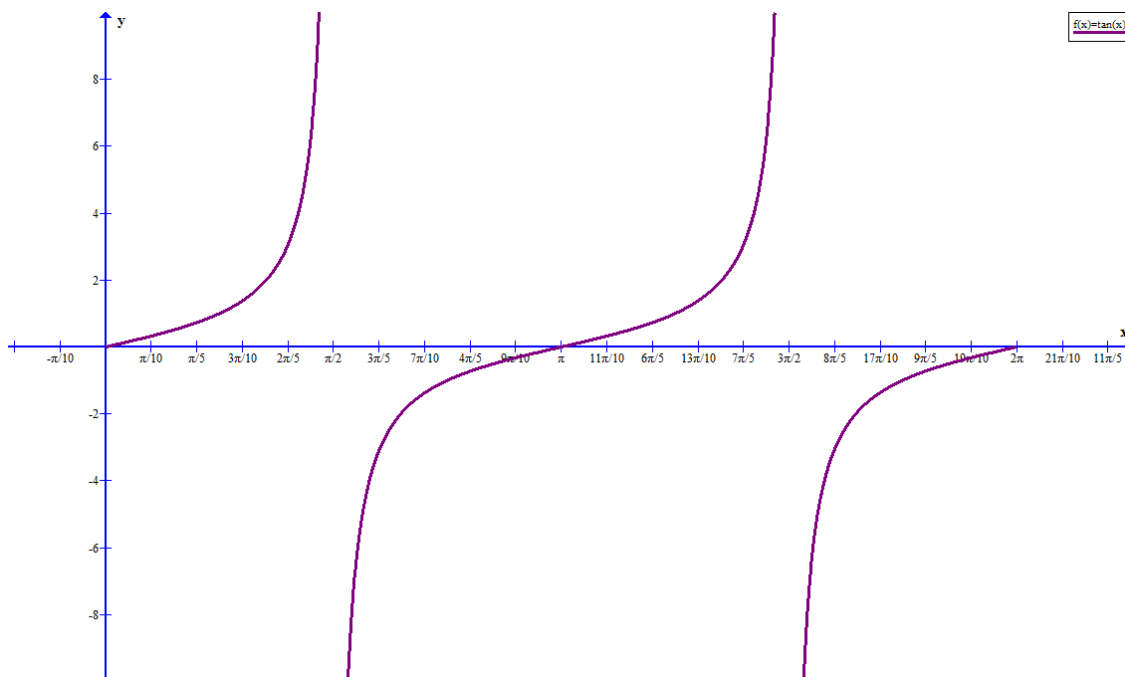


Función tangente: $y = \text{tg } x$

Completa la siguiente tabla (x viene dada en grados sexagesimales y en radianes), con dos decimales.

x	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°
	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y	0,00	0,27	0,58	1,00	1,73	3,73	∞	-3,73	-1,73	-1,00	-0,58	-0,27	0,00

x	195°	210°	225°	240°	255°	270°	285°	300°	315°	330°	345°	360°
	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y	0,27	0,58	1,00	1,73	3,73	∞	-3,37	-1,73	-1,00	-0,58	-0,27	0,00

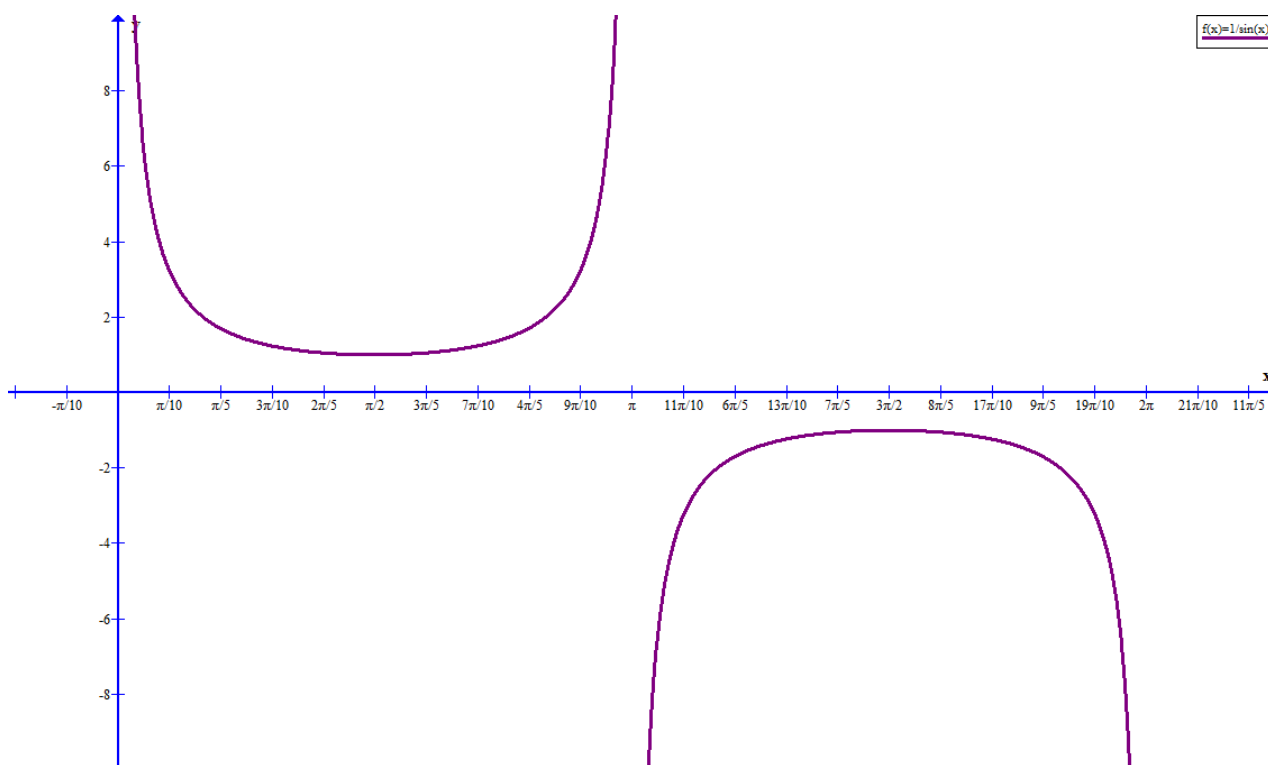


Función cosecante: $y = \operatorname{cosec} x = \frac{1}{\operatorname{sen} x}$

Completa la siguiente tabla (x viene dada en grados sexagesimales y en radianes), con dos decimales.

x	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°
	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y	∞	3,86	2,00	1,41	1,15	1,04	1,00	1,04	1,15	1,41	2,00	3,86	∞

x	195°	210°	225°	240°	255°	270°	285°	300°	315°	330°	345°	360°
	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y	-3,86	-2,00	-1,41	-1,15	-1,04	-1,00	-1,04	-1,15	-1,41	-2,00	-3,86	∞

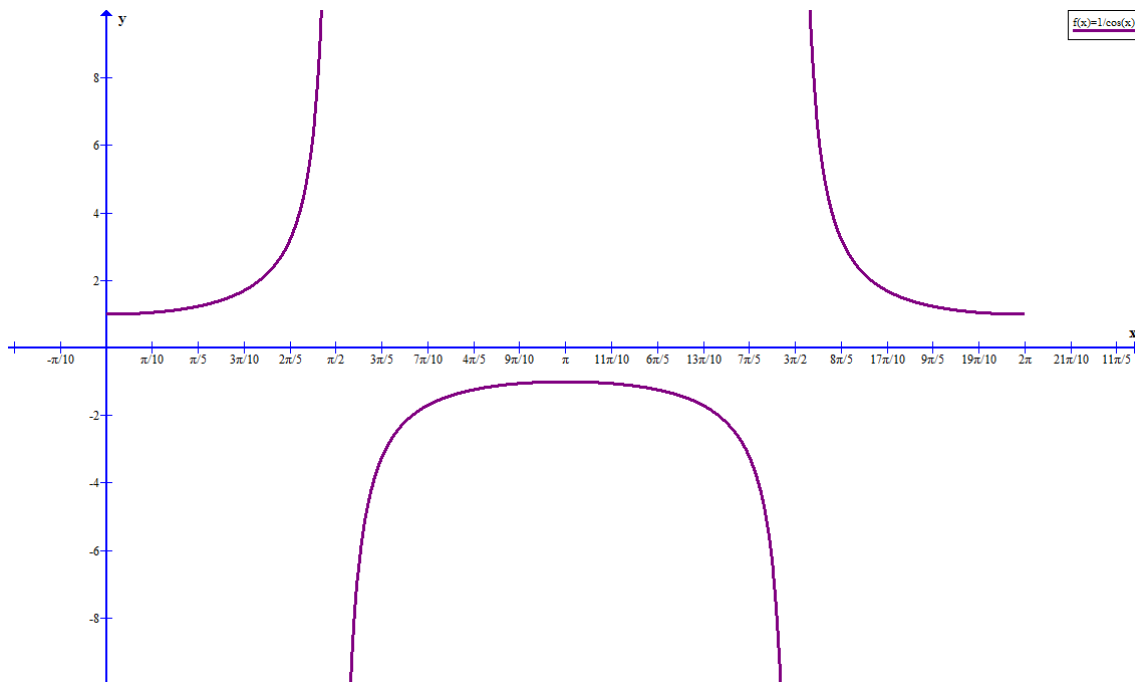


Función secante: $y = \operatorname{sec} x = \frac{1}{\operatorname{cos} x}$

Completa la siguiente tabla (x viene dada en grados sexagesimales y en radianes), con dos decimales.

x	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°
	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y	1,00	1,04	1,15	1,41	2,00	3,86	∞	-3,86	-2,00	-1,41	-1,15	-1,04	-1,00

x	195°	210°	225°	240°	255°	270°	285°	300°	315°	330°	345°	360°
	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y	-1,04	-1,15	-1,41	-2,00	-3,86	∞	3,86	2,00	1,41	1,15	1,04	1,00

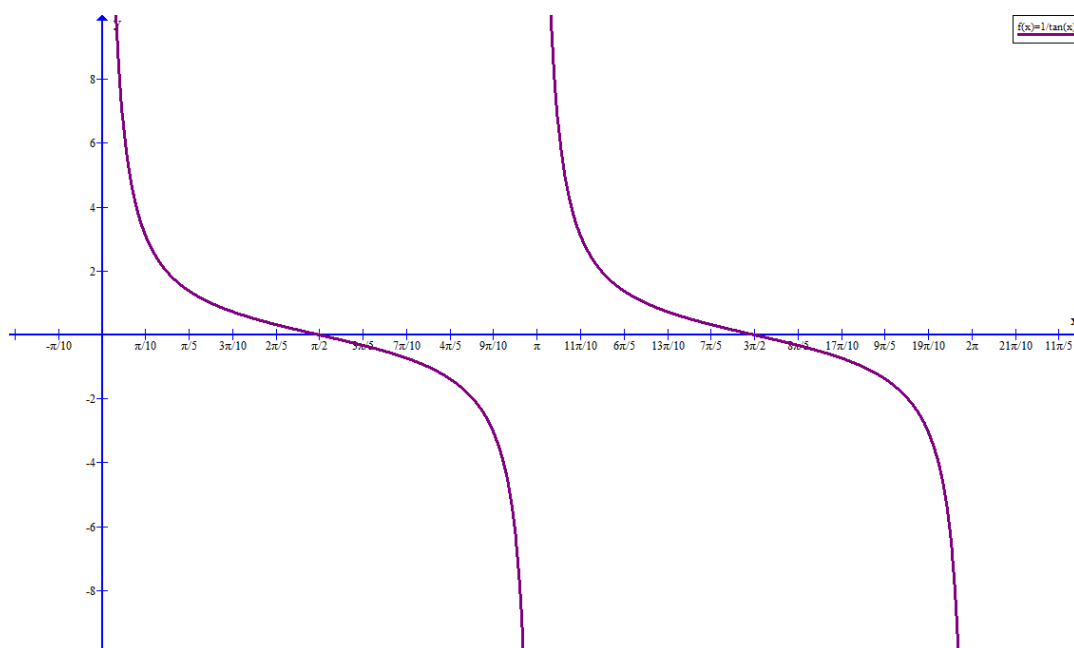


Función cotangente: $y = \text{cotg } x = \frac{1}{\text{tg } x}$

Completa la siguiente tabla (x viene dada en grados sexagesimales y en radianes)

	0°	15°	30°	45°	60°	75°	90°	105°	120°	135°	150°	165°	180°
x	0	$\frac{\pi}{12}$	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{5\pi}{12}$	$\frac{\pi}{2}$	$\frac{7\pi}{12}$	$\frac{2\pi}{3}$	$\frac{3\pi}{4}$	$\frac{5\pi}{6}$	$\frac{11\pi}{12}$	π
y	∞	3,73	1,73	1,00	0,58	0,27	0	-0,27	-0,58	-1,00	-1,73	-3,73	∞

	195°	210°	225°	240°	255°	270°	285°	300°	315°	330°	345°	360°
x	$\frac{13\pi}{12}$	$\frac{7\pi}{6}$	$\frac{5\pi}{4}$	$\frac{4\pi}{3}$	$\frac{17\pi}{12}$	$\frac{3\pi}{2}$	$\frac{19\pi}{12}$	$\frac{5\pi}{3}$	$\frac{7\pi}{4}$	$\frac{11\pi}{6}$	$\frac{23\pi}{12}$	2π
y	3,73	1,73	1,00	0,58	0,27	0	-0,27	-0,58	-1,00	-1,73	-3,73	∞

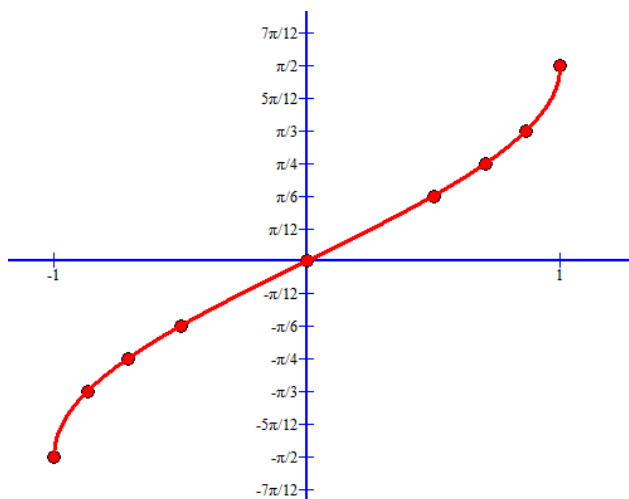


FUNCIONES TRIGONOMÉTRICAS INVERSAS

Función arcoseno: $y = \arcsen x$

Completa la siguiente tabla, con $x \in [-1,1]$ e $y \in \left[-\frac{\pi}{2}, \frac{\pi}{2}\right]$.

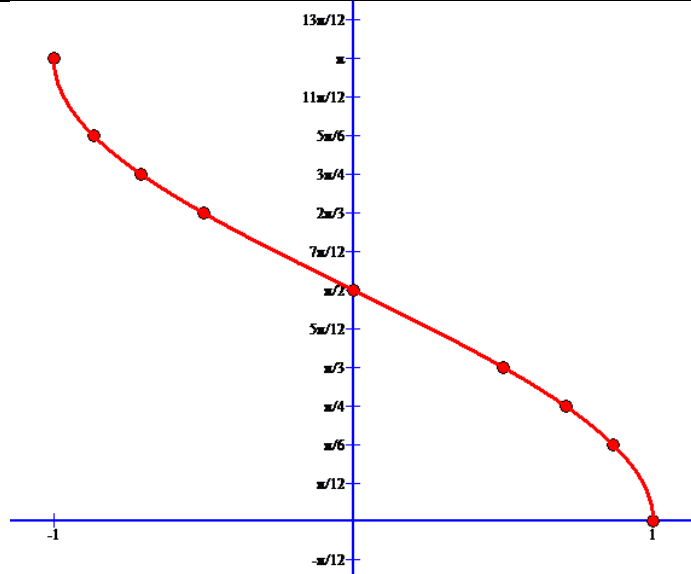
x	-1	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{1}{2}$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
y	$-\frac{\pi}{2}$	$-\frac{\pi}{3}$	$-\frac{\pi}{4}$	$-\frac{\pi}{6}$	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$



Función arcoseno: $y = \arccos x$

Completa la siguiente tabla, con $x \in [-1,1]$ e $y \in [0, \pi]$.

x	-1	$-\frac{\sqrt{3}}{2}$	$-\frac{\sqrt{2}}{2}$	$-\frac{1}{2}$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
y	π	$\frac{5\pi}{6}$	$\frac{3\pi}{4}$	$\frac{2\pi}{3}$	$\frac{\pi}{2}$	$\frac{\pi}{3}$	$\frac{\pi}{4}$	$\frac{\pi}{6}$	0



Función arcotangente: $y = \operatorname{arctg} x$

Completa la siguiente tabla, con $x \in \mathbb{R}$ e $y \in \left(-\frac{\pi}{2}, \frac{\pi}{2}\right)$.

x	$-\infty$	$-\sqrt{3}$	-1	$-\frac{\sqrt{3}}{3}$	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	$+\infty$
y	$-\frac{\pi}{2}$	$-\frac{\pi}{3}$	$-\frac{\pi}{4}$	$-\frac{\pi}{6}$	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$

