

TRIGONOMETRY: TANGENT & COTANGENT REFERENCE

$$y = \tan(x)$$

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Period: π
Domain: $x \neq \pi/2 + n\pi$
Range: $(-\infty, \infty)$
Intercepts: $n\pi$

$$y = \cot(x)$$

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Period: π
Domain: $x \neq n\pi$
Range: $(-\infty, \infty)$
Intercepts: $\pi/2 + n\pi$

Angle (x)	0	$\pi/6$	$\pi/4$	$\pi/3$	$\pi/2$
tan(x)	0	$\sqrt{3}/3$	1	$\sqrt{3}$	Undefined
cot(x)	Undefined	$\sqrt{3}$	1	$\sqrt{3}/3$	0

Key Differences: Tangent is an increasing function between asymptotes, while Cotangent is a decreasing function. Vertical asymptotes for Tangent occur at odd multiples of $\pi/2$, whereas for Cotangent they occur at integer multiples of π .