Trigonometry Worksheet: Graph Trigonometric Functions (6)

Graph the trigonometric function given by

$$y = -\cot(\pi x - \frac{\pi}{4})$$

The cotangent has a period of π and vertical asymptotes at $x = 0$ and $x = \pi$. A cycle for the given function may be found by solving

$$0 < \pi x - \frac{\pi}{4} < \pi$$

$$\frac{1}{4} < x < \frac{5}{4}$$

The graph of the given function has Vertical asymptotes at $x = \frac{1}{4}$ and $x = \frac{5}{4}$.

$\pi x - \frac{\pi}{4}$	0	$\pi/4$	$\pi/2$	$\frac{3\pi}{4}$	π
$\cot(\pi x - \frac{\pi}{4})$	U	1	0	-1	U
x	$\frac{1}{4}$	$\frac{2}{4}$	$\frac{3}{4}$	$\frac{4}{4}$	$\frac{5}{4}$
y	U	-1	0	1	U
	V.A				V.A

U = undefined

V.A = Vertical asymptote