

Trigonometry Worksheet: Graph Trigonometric Functions (8)

Graph the trigonometric function given by

$$y = -2 \csc(-\pi x - \pi) = 2 \csc(\pi x + \pi)$$

One cycle is found by solving

$$0 < \pi x + \pi < 2\pi \Rightarrow -1 < x < 1$$

Note: we use $\csc(\pi x + \pi) = \frac{1}{\sin(\pi x + \pi)}$

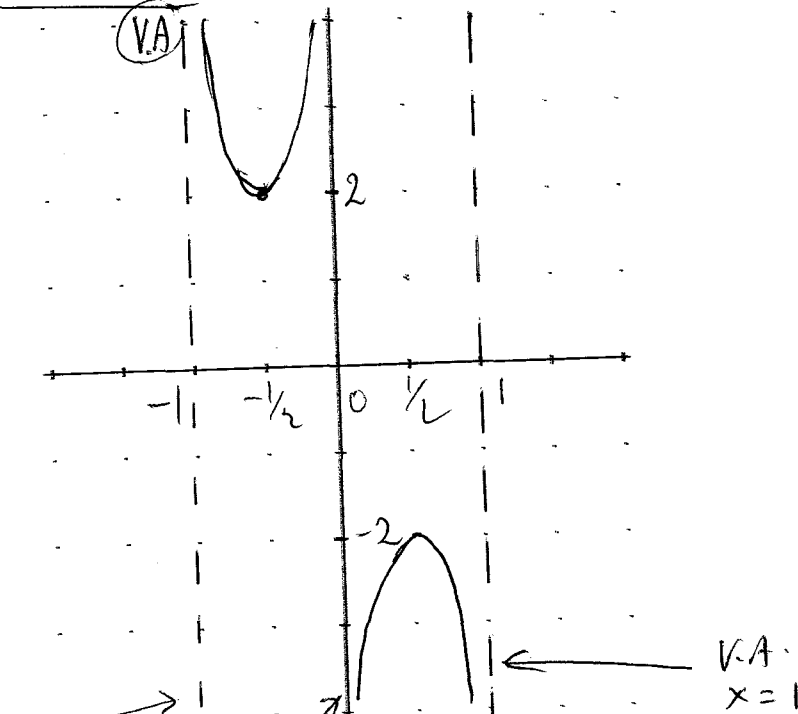
$\pi x + \pi$	0	$\frac{\pi}{2}$	π	$\frac{3\pi}{2}$	2π
$\sin(\pi x + \pi)$	0	1	0	-1	0
$\csc(\pi x + \pi) = \frac{1}{\sin(\pi x + \pi)}$	U	1	U	-1	U
x	-1	$-\frac{1}{2}$	0	$\frac{1}{2}$	1
y	U	2	U	-2	U

V.A.

V.A.

V.A.

U = undefined
V.A = Vertical asymptote



V.A.
x = -1

From www.analyzemath.com

V.A.
x = 0

V.A.
x = 1