Investigating the Secant Function

x	y₁=cosx	y₂=secx
0	1	1
π/4	0.7	1.4
π/2	0	undef.
3π/4	-0.7	-1.4
π	-1	-1
5π/4	-0.7	-1.4
3π/2	0	undef.
7π/4	0.7	1.4
2π	1	1
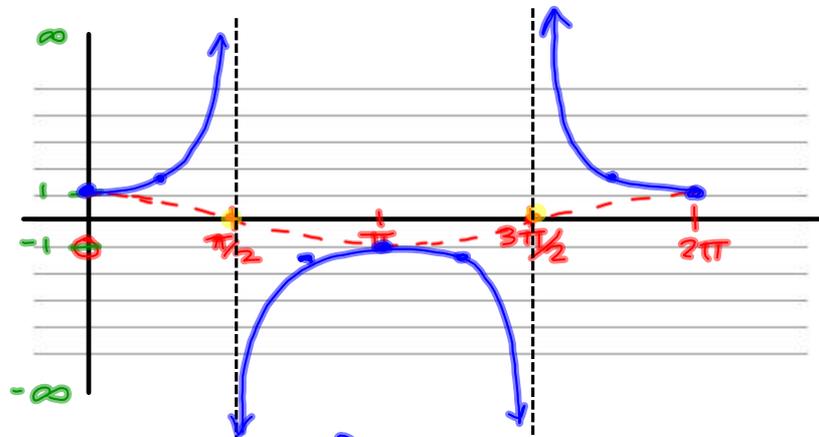
ONE PHASE: of $y = \sec x$

DOMAIN: $[0, \frac{\pi}{2}) \cup (\frac{\pi}{2}, \frac{3\pi}{2}) \cup (\frac{3\pi}{2}, 2\pi]$

RANGE: $(-\infty, -1] \cup [1, \infty)$

Graphing Secant

Graph 1 period and state the domain and range of that period.

$$y = -2\sec\frac{3\theta}{2}$$

↑ reflected

$\frac{3\theta}{2} = 0$

$\theta = 0$

$\frac{3\theta}{2} = 360°$

$3\theta = 720°$

$\theta = 240°$