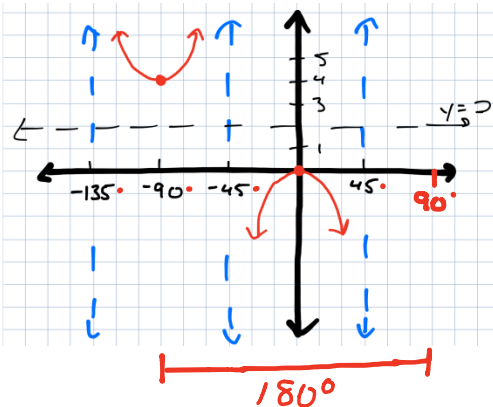


# Graphs & Inverses of Trig Functions

## 6B – Graphing Secant & Cosecant

Write an equation of the secant function with the given information

#1)

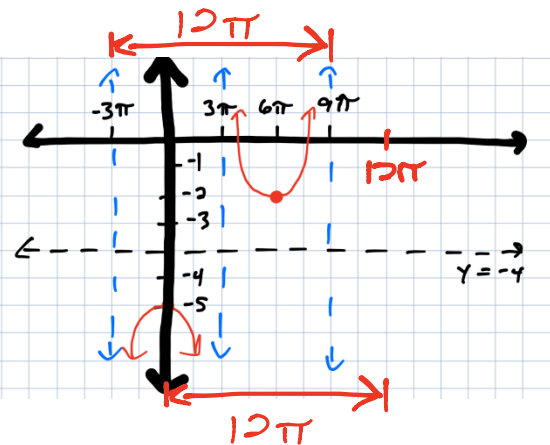


$$180^\circ k = 360^\circ$$

$$k = 2$$

Equation  $y = 2 \sec[2(\theta + 90^\circ)] + 2$

#2)



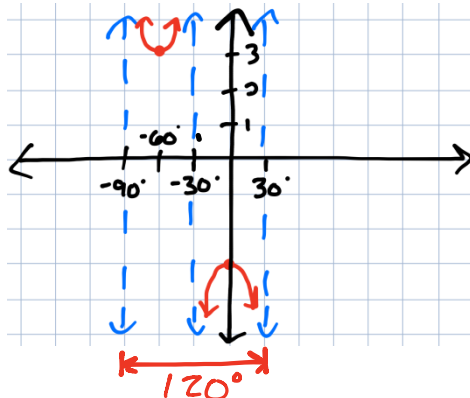
$$12\pi k = 2\pi$$

$$k = \frac{1}{6}$$

Equation  $y = -2 \sec\left(\frac{1}{6}\theta\right) - 4$

Write an equation of the cosecant function with the given information

#3)

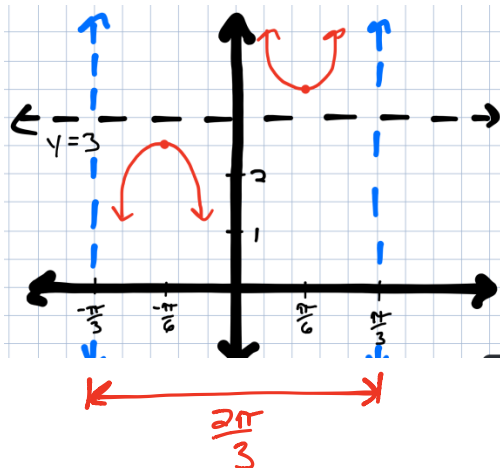


$$120^\circ k = 360^\circ$$

$$k = 3$$

Equation  $y = 3 \csc[3(\theta + 90^\circ)]$

#4)



$$\frac{2\pi}{3} k = 2\pi$$

$$k = 3$$

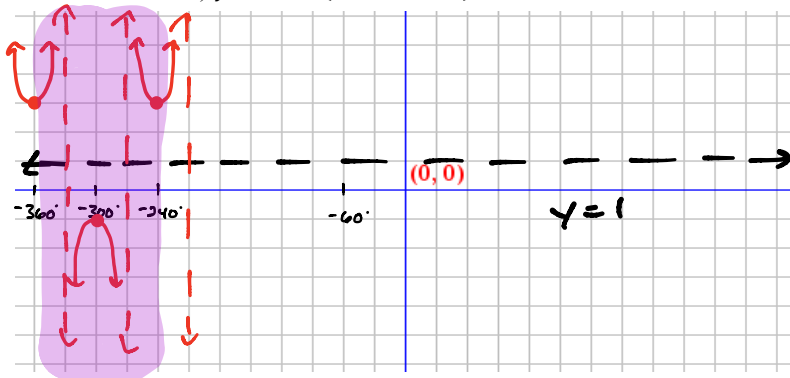
Equation  $y = -\frac{1}{2} \csc\left[3\left(\theta + \frac{\pi}{4}\right)\right] + 3$

# Graphs & Inverses of Trig Functions

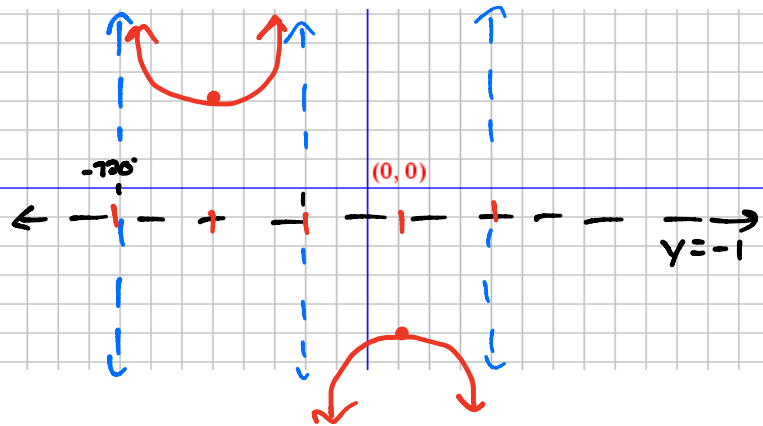
## 6B – Graphing Secant & Cosecant

Graph each function for at least 1 period.

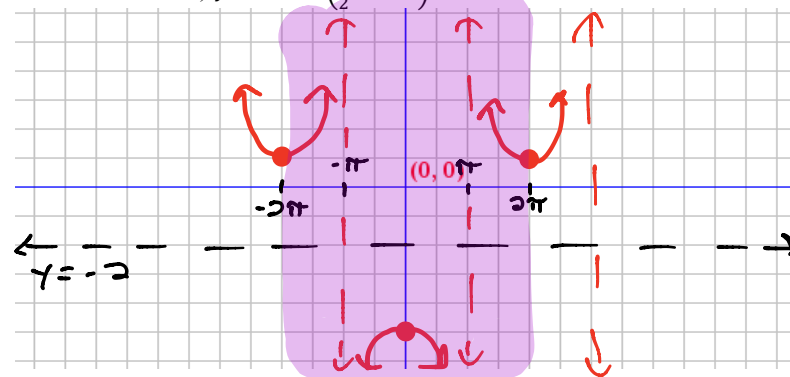
$y = 2 \sec[3(\theta + 1080^\circ)] + 1$   
 #5)  $y = 2 \sec(3\theta + 1080^\circ) + 1$



$y = 4 \csc\left[\frac{1}{3}(\theta + 720^\circ)\right] - 1$   
 #7)  $y = 4 \csc\left(\frac{1}{3}\theta + 240^\circ\right) - 1$



$y = 3 \sec\left[\frac{1}{2}(\theta + 2\pi)\right] - 2$   
 #6)  $y = 3 \sec\left(\frac{1}{2}\theta + \pi\right) - 2$



$y = \frac{1}{2} \csc\left[2\left(\theta - \frac{\pi}{4}\right)\right] + 3$   
 #8)  $y = \frac{1}{2} \csc\left(2\theta - \frac{\pi}{2}\right) + 3$

