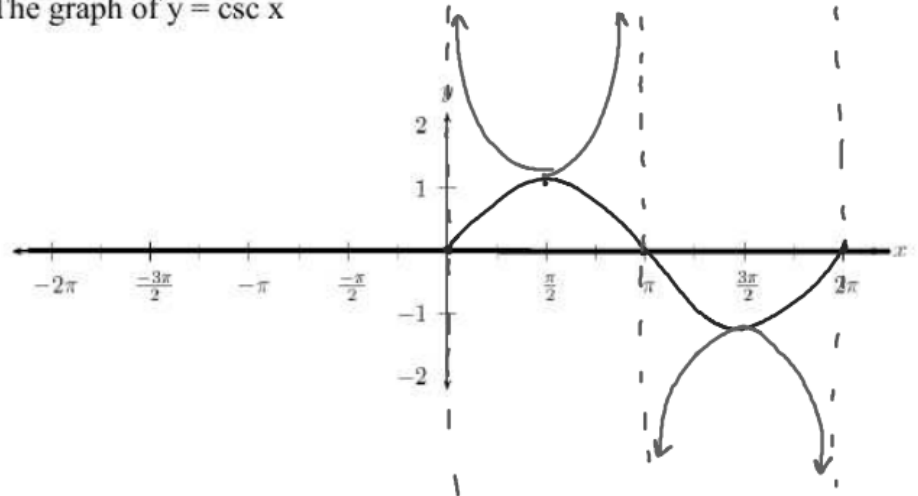


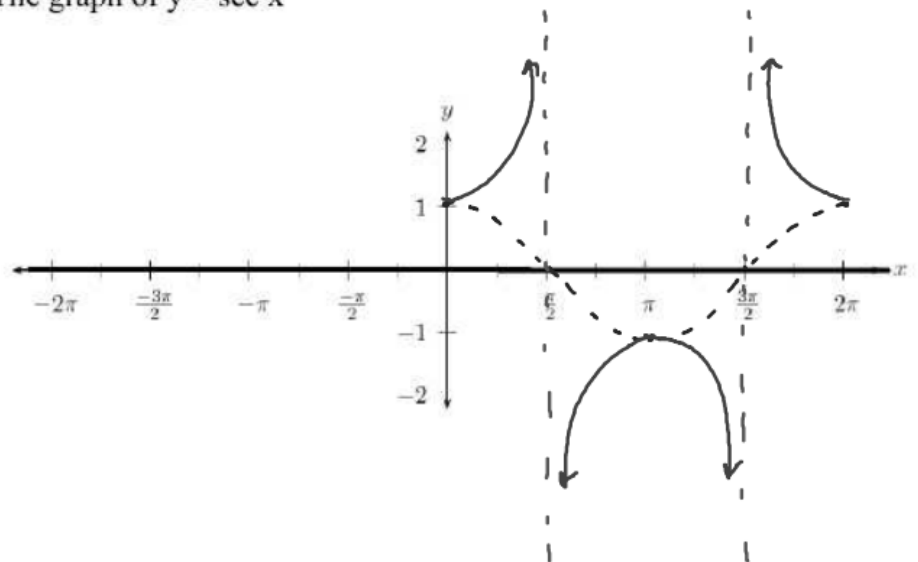
What you'll Learn About

- The graphs of the other 4 trig functions

The graph of $y = \csc x$



The graph of $y = \sec x$

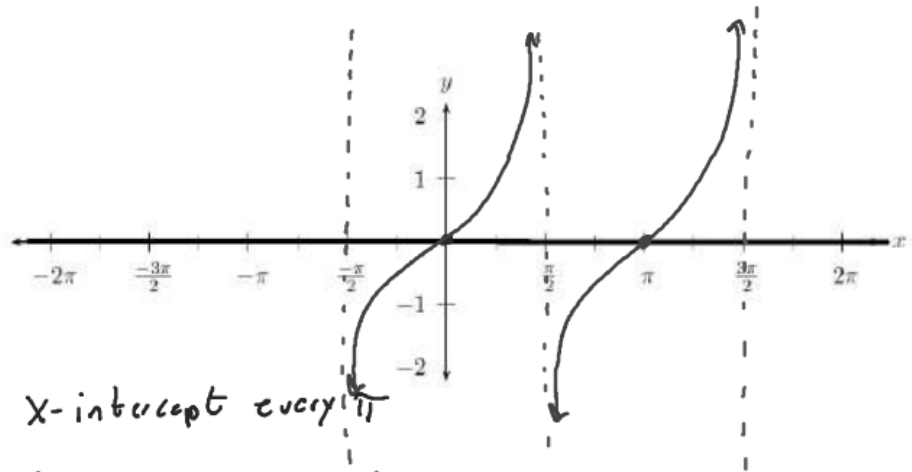


Period = π

per $\frac{\pi}{B}$

Per = $\frac{\pi}{B}$

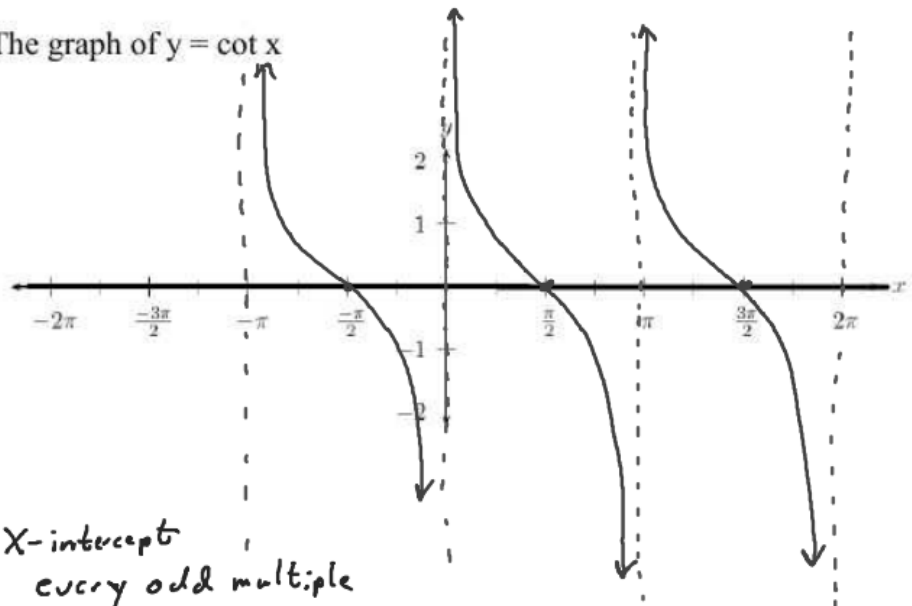
The graph of $y = \tan x$ (Graph 2 periods)



X-intercept every π

V.A. $x =$ every odd multiple of $\frac{\pi}{2}$

The graph of $y = \cot x$



X-intercept every odd multiple of $\frac{\pi}{2}$

V.A. every π

Describe the graph of the function in terms of a basic trigonometric function. Locate the vertical asymptotes and graph 2 periods of the function.

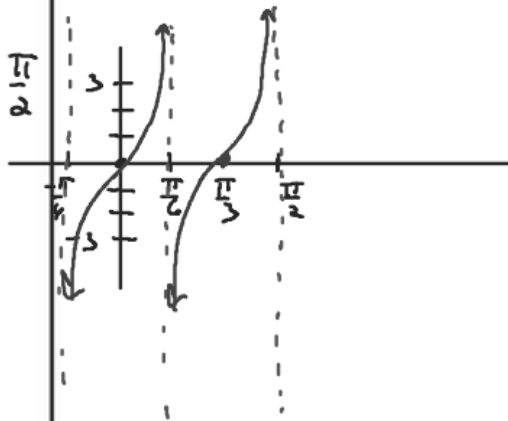
λ -intercepts
 $x = 0, \frac{\pi}{3}$

V.A. $x = -\frac{\pi}{6}, \frac{\pi}{6}, \frac{\pi}{2}$

A) $y = 2\tan(3x)$

Amp = 2

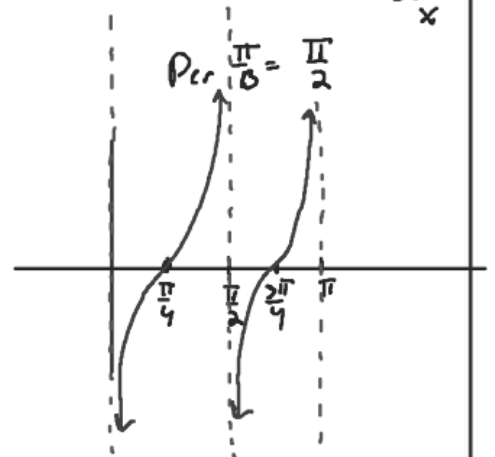
Per $\frac{\pi}{3} = \frac{\pi}{3}$



B) $y = -\cot(2x)$

Amp = 1 Reflect over x

Per $\frac{\pi}{2} = \frac{\pi}{2}$



x -intercept $x = \frac{\pi}{4}, \frac{3\pi}{4}$

V.A. $x = 0, \frac{\pi}{2}, \pi$

C) $y = \sec(4x)$

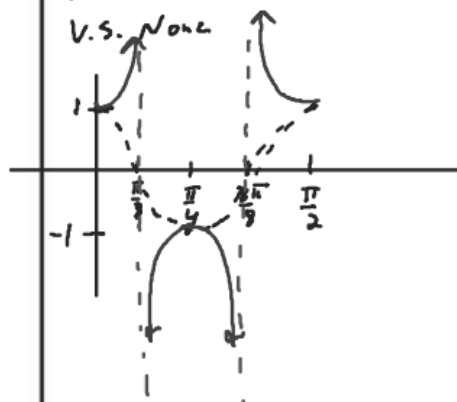
$y = \cos(4x)$

Amp = 1

Per $\frac{2\pi}{4} = \frac{\pi}{2}$

D.S. None

V.S. None



V.A. $x = \frac{\pi}{8}, \frac{3\pi}{8}$

D) $y = -\csc(\frac{x}{3})$

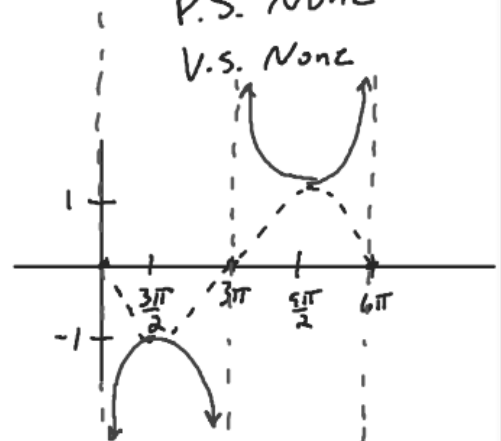
$y = -\sin(\frac{1}{3}x)$

Amp = 1 Reflect over x

Per $\frac{2\pi}{\frac{1}{3}} = 6\pi$

P.S. None

V.S. None

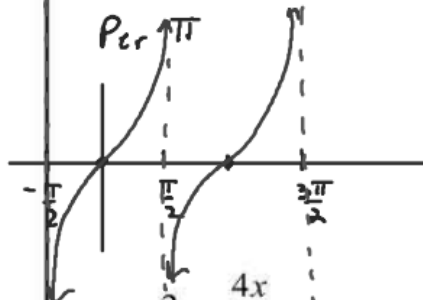


Describe the transformations required to obtain the graph of the given function from a basic trigonometric graph.

A) $y = 5 \tan x$

Amp = 5

Per $\uparrow \pi$

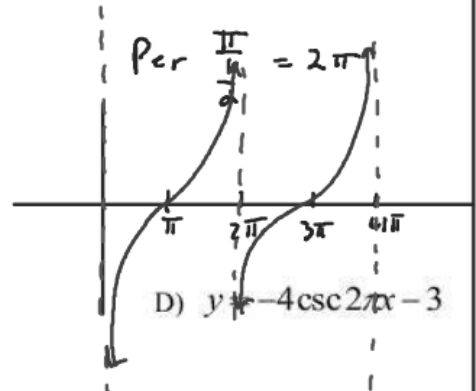


C) $y = 2 \sec \frac{4x}{3}$

B) $y = -3 \cot \left(\frac{x}{2} \right)$

Amp 1 reflect over x-axis

Per $\frac{\pi}{2} = 2\pi$



D) $y = -4 \csc 2x - 3$