

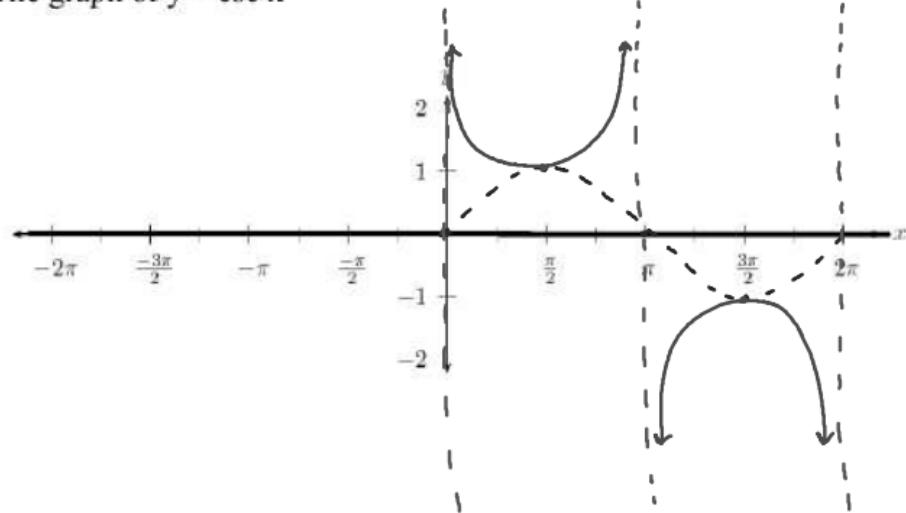
## What you'll Learn About

- The graphs of the other 4 trig functions

$$\csc x = \frac{1}{\sin x}$$

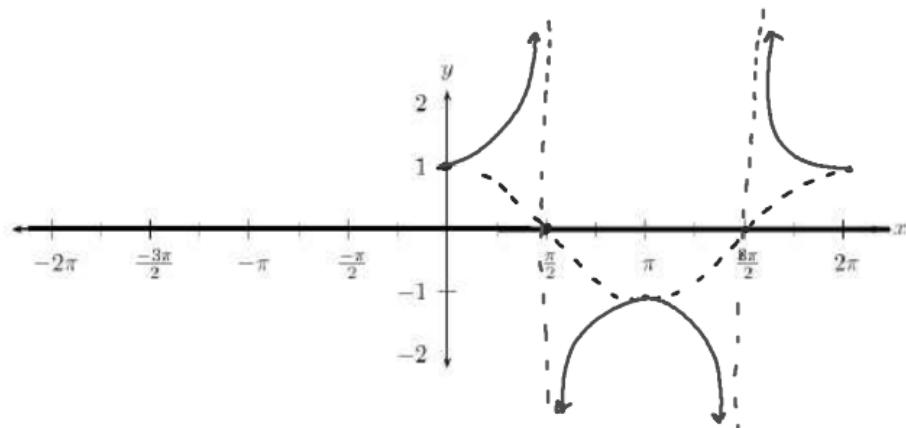
Graph  $\sin x$

The graph of  $y = \csc x$



$$\sec x = \frac{1}{\cos x}$$

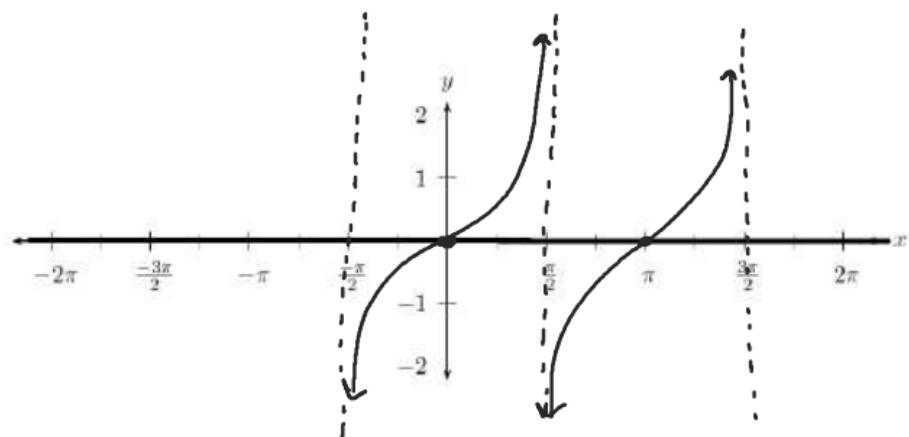
The graph of  $y = \sec x$



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

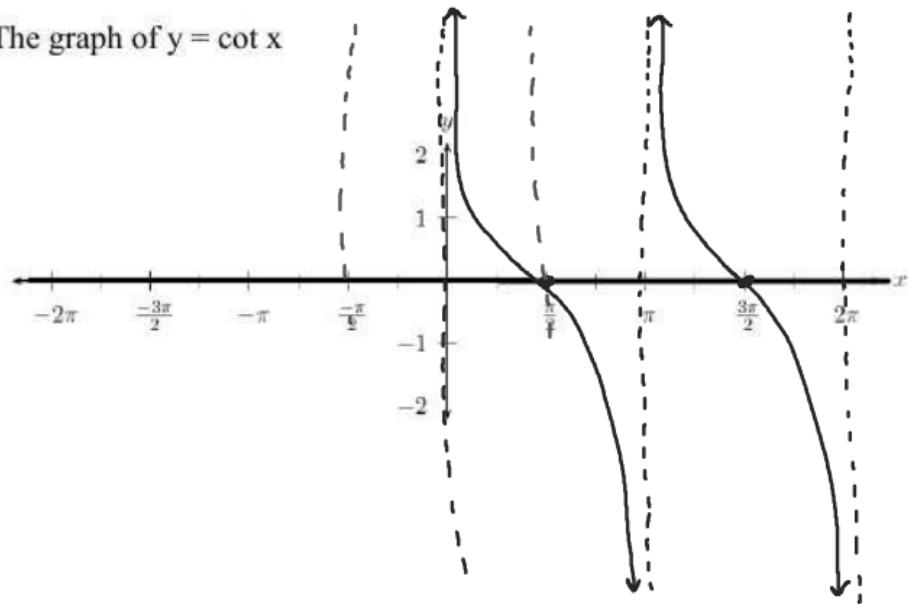
tan/cot  
 $Per = \frac{\pi}{B}$

The graph of  $y = \tan x$



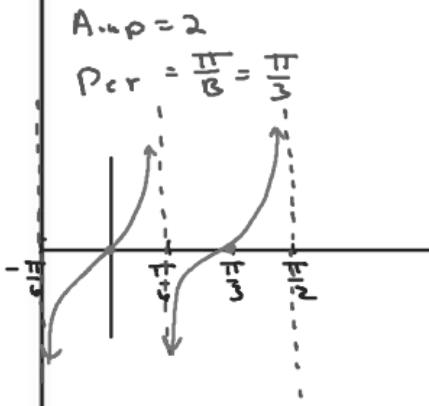
$$Per = \frac{\pi}{B}$$

The graph of  $y = \cot x$

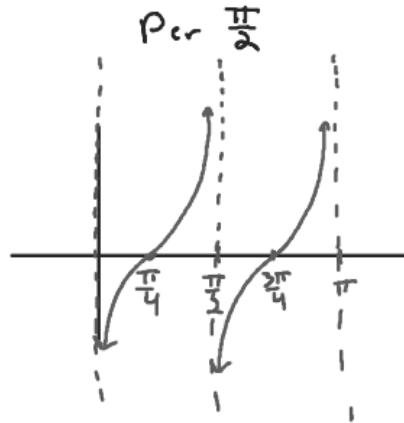


Describe the graph of the function in terms of a basic trigonometric function. Locate the vertical asymptotes and graph 2 periods of the function.

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



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

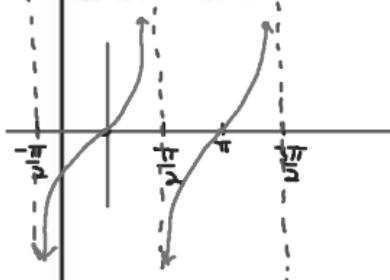


C)  $y = \sec(4x)$

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

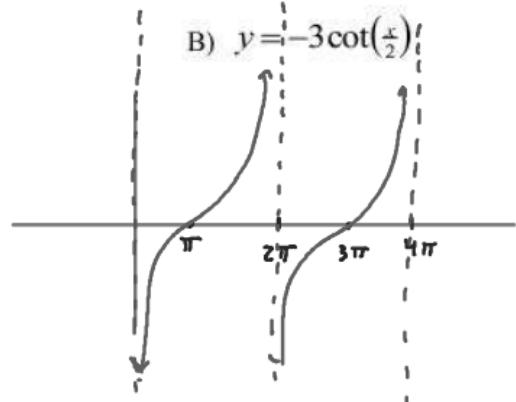
Describe the transformations required to obtain the graph of the given function form a basic trigonometric graph.

A)  $y = 5 \tan x$



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

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



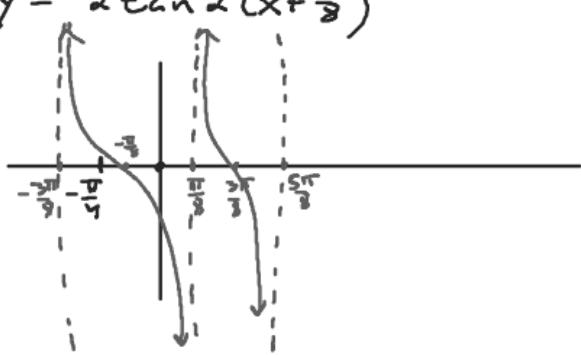
D)  $y = -4 \csc 2\pi x - 3$

$$\text{Amp} = 2$$

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

$$\text{P.S. } \frac{\pi}{8} \text{ Left}$$

$$Y = -2 \tan 2\left(x + \frac{\pi}{8}\right)$$



$$Y = 2 \cot\left(x - \frac{\pi}{2}\right) + 1$$

