What you'll Learn About
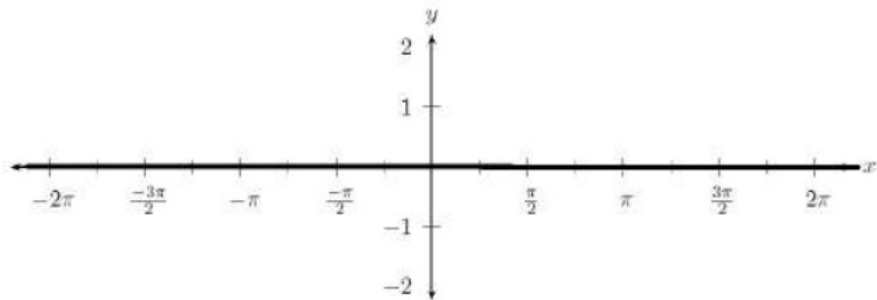- The graphs of the other 4 trig functions

The graph of y = csc x $y = \sin x$
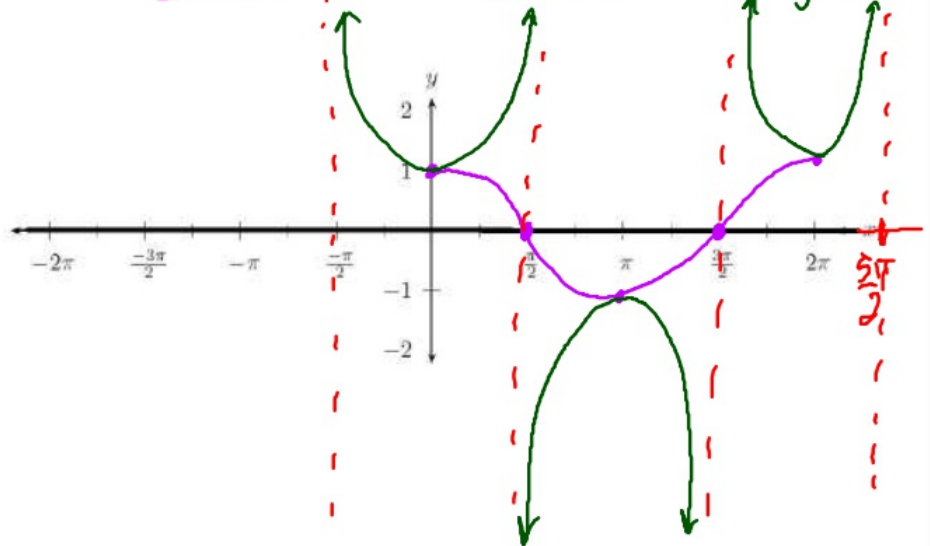
The graph of y = sec x $y = \cos x$ $y = \sec x$
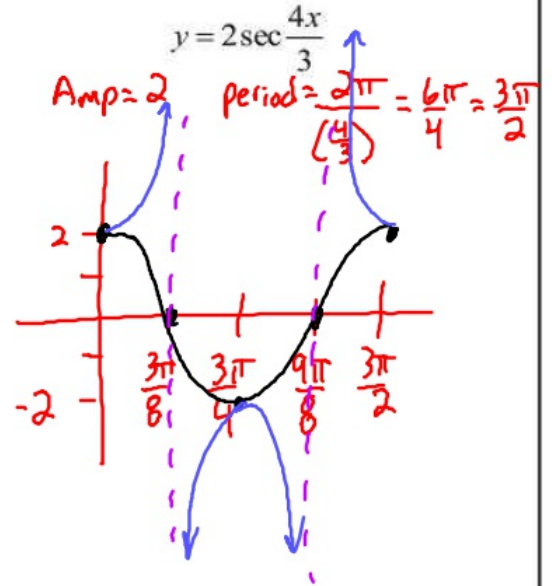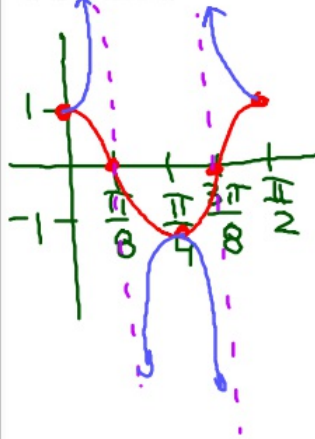
* Asymptotes occur when $\cos x = 0$
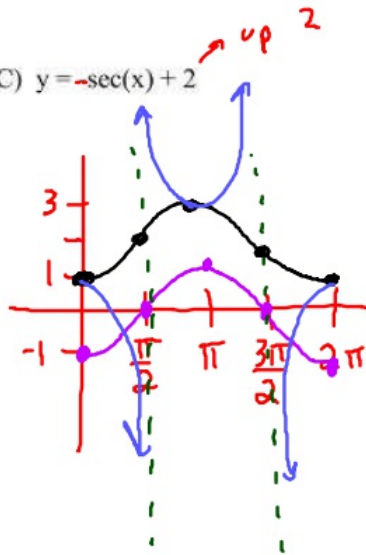
$\frac{5\pi}{2}$

$$y = \cos(4x)$$

$$\text{period} = \frac{2\pi}{4} = \frac{\pi}{2}$$

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) $y = \sec(4x)$

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

Amp = 2   period = $\dfrac{2\pi}{\left(\frac{4}{3}\right)} = \dfrac{6\pi}{4} = \dfrac{3\pi}{2}$

* Draw asymptotes before you move up or down

C) $y = -\sec(x) + 2$

up 2

D. $y = 2\sec\left(\frac{1}{2}x - 2\right)$

$$y = 2\sec\frac{1}{2}(x - 4)$$

Amp = 2   period = $\dfrac{2\pi}{\left(\frac{1}{2}\right)} = 4\pi$

right 4

Describe the graph of the function in terms of a basic trigonometric function. Locate the vertical asymptotes and graph 2 periods of the function.
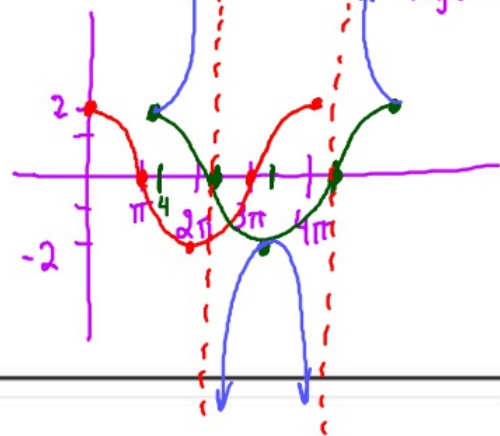
A) $y = \csc\left(\frac{x}{3}\right)$

B) $y = 4\csc 2\pi x$

C) $y = -\csc(x) + 1$

D) $y = 2\csc\left(\frac{1}{3}x - 2\right)$

$y = 2csc \frac{1}{3}\left(x - 6\right)$

$Amp = 2$ $period = \frac{2\pi}{\frac{1}{3}} = 6\pi$

right 6