PreCalculus

Notes: 4.6 Graphs of Cosecant and Secant Functions

Name_____

Date_____Block _____

Cosecant

x	$f(x) = \sin x$	$g(x) = \csc x$
-2π		
$-\frac{3\pi}{2}$		
$-\pi$		
$-\frac{\pi}{2}$		
0		
$\frac{\pi}{2}$		
π		
$\frac{3\pi}{2}$		
2π		

The Basics

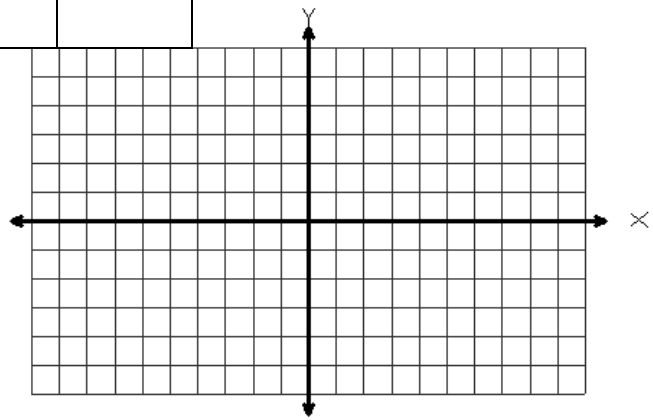
Domain:

Range:

Period:

Even/Odd:

Asymptotes:



Secant

x	$f(x) = \cos x$	$g(x) = \sec x$
-2π		
$-\frac{3\pi}{2}$		
$-\pi$		
$-\frac{\pi}{2}$		
0		
$\frac{\pi}{2}$		
π		
$\frac{3\pi}{2}$		
2π		

The Basics

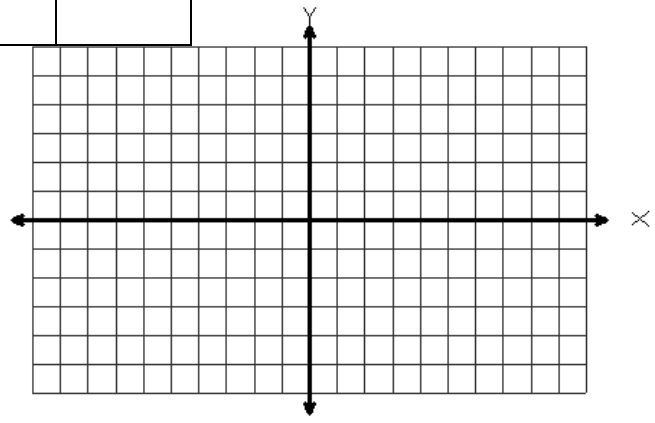
Domain:

Range:

Period:

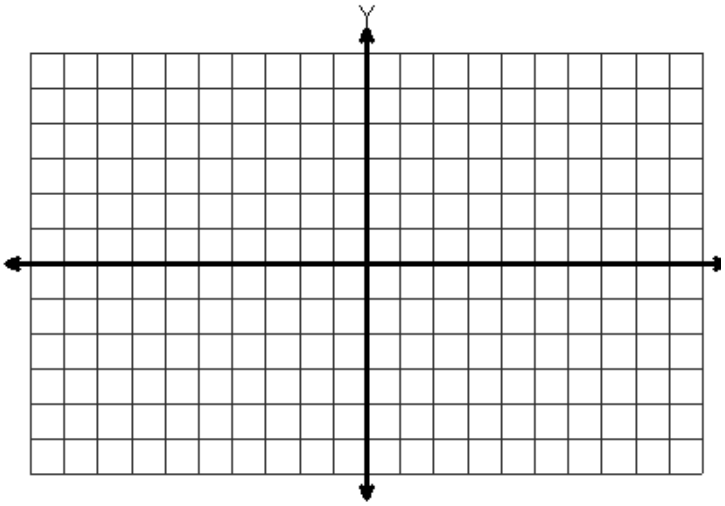
Even/Odd:

Asymptotes:

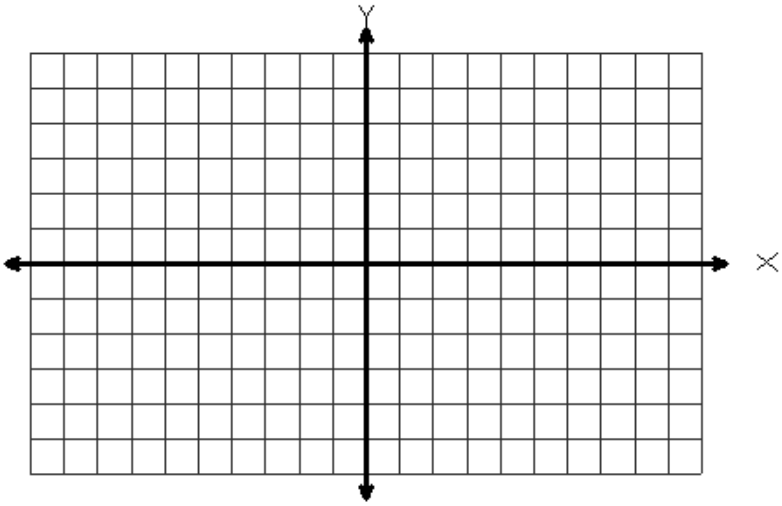


In 1 - 4, sketch the graph of each function. Identify any and all transformations of the parent graph first, and be sure to include two full periods.

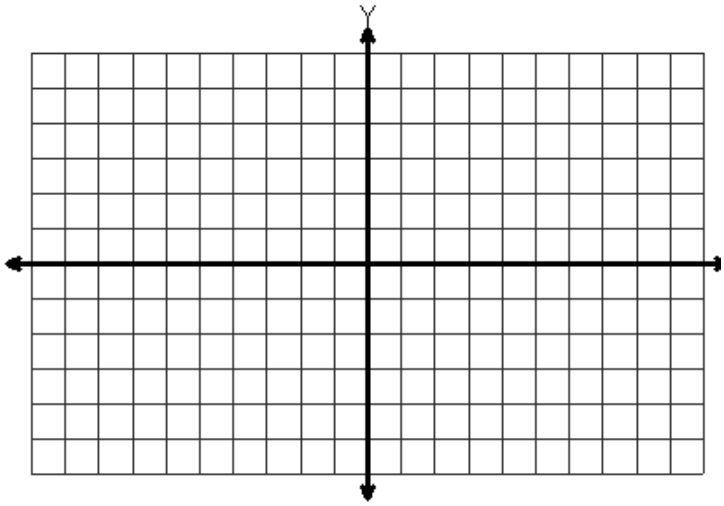
1. $y = \csc\left(\frac{1}{2}x\right) - 1$



2. $y = \csc(2x - \pi)$



3. $y = 2\sec(3x + \pi) + 1$



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