$y = \frac{1}{2}\sin\left(x + \frac{\pi}{2}\right)$

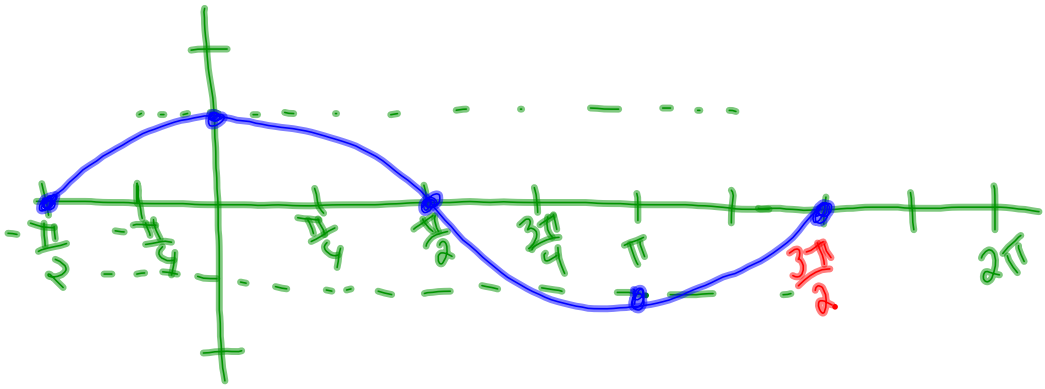
$\frac{2\pi}{4} = \frac{\pi}{2}$

Amp $= \frac{1}{2}$

Period $= \frac{2\pi}{1} = 2\pi$

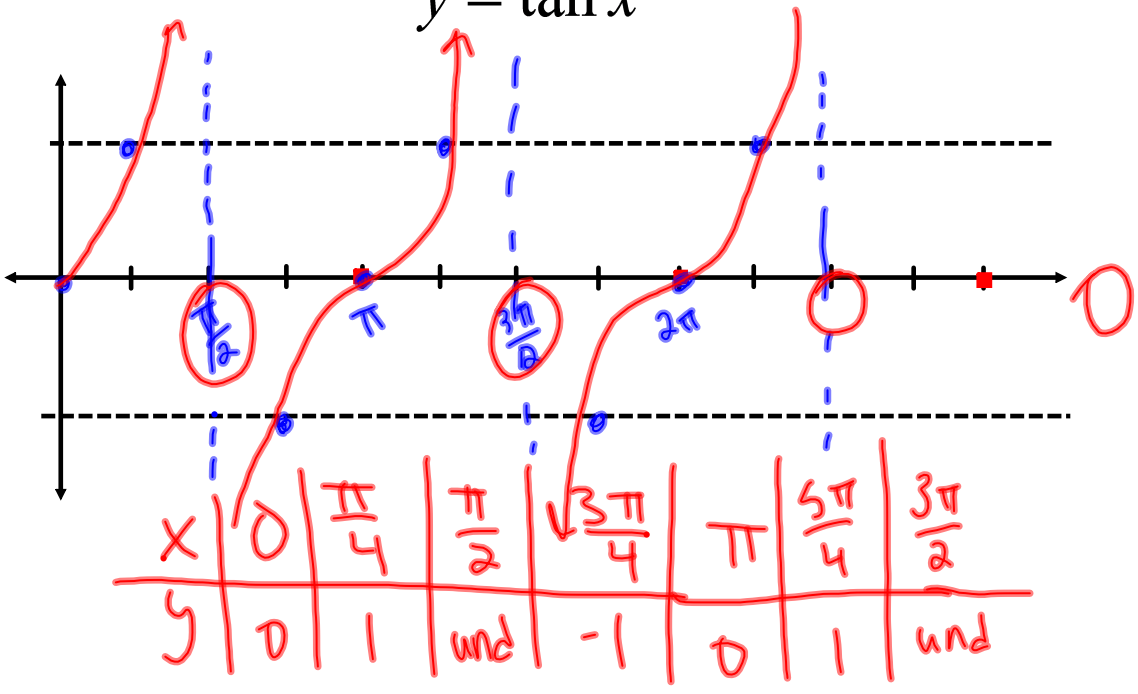
shift $= -\frac{\pi}{2}$

x	$-\frac{\pi}{2}$	0	$\frac{\pi}{2}$	π	$\frac{3\pi}{2}$
y	0	$\frac{1}{2}$	0	$-\frac{1}{2}$	0



Chapter 4.6: Graphs of other Trig functions.

$y = \tan x$



x	0	$\frac{\pi}{4}$	$\frac{\pi}{2}$	$\frac{3\pi}{4}$	π	$\frac{5\pi}{4}$	$\frac{3\pi}{2}$
y	0	1	und	-1	0	1	und

Tangent Function: $y = a\tan(bx - h) + k$

period: π

domain: $x \in \mathbb{R}$ except odd multiples of $\pi/2$

range: $y \in \mathbb{R}$

asymptotes: odd multiples of $\pi/2$

$y = \tan x$

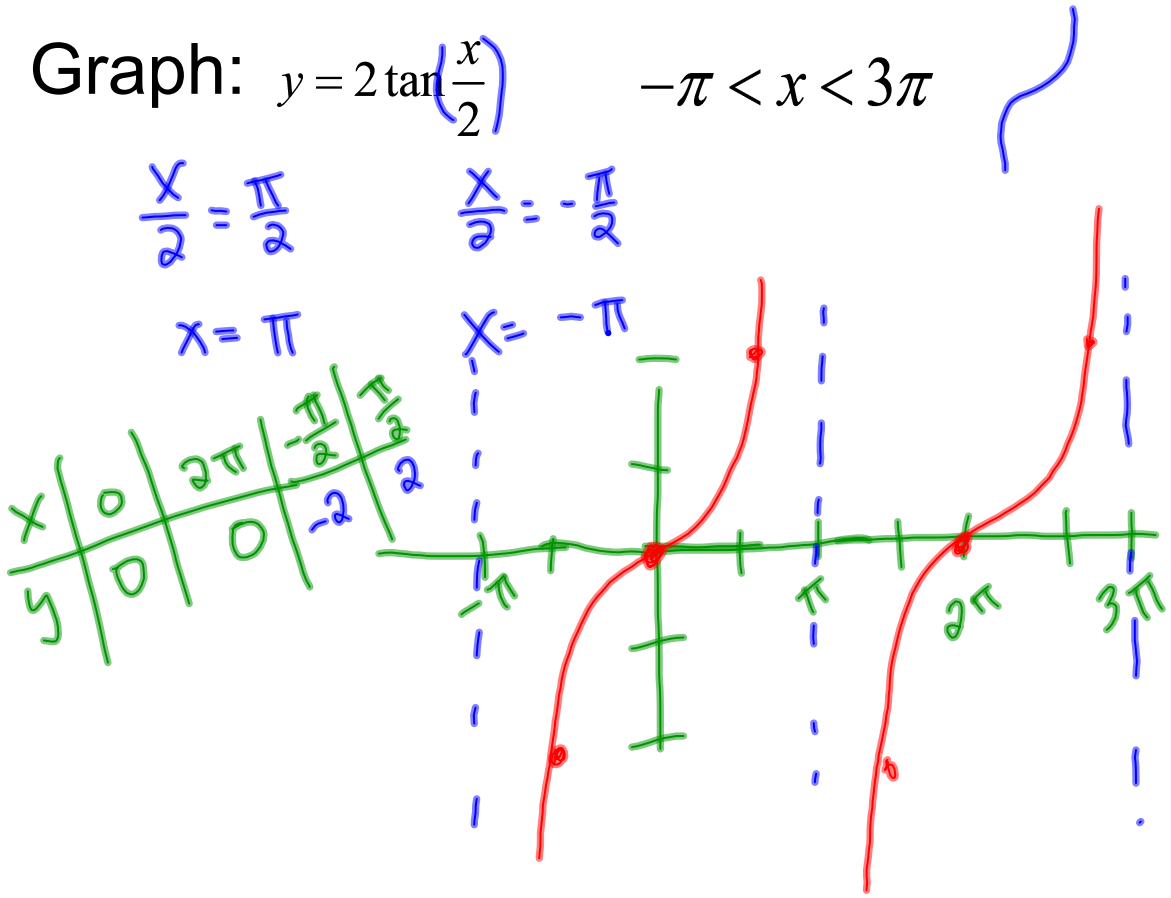
Graph: $y = a\tan(bx - h) + k$

1. Find the asymptotes ---- $bx - h = \pm\frac{\pi}{2}$

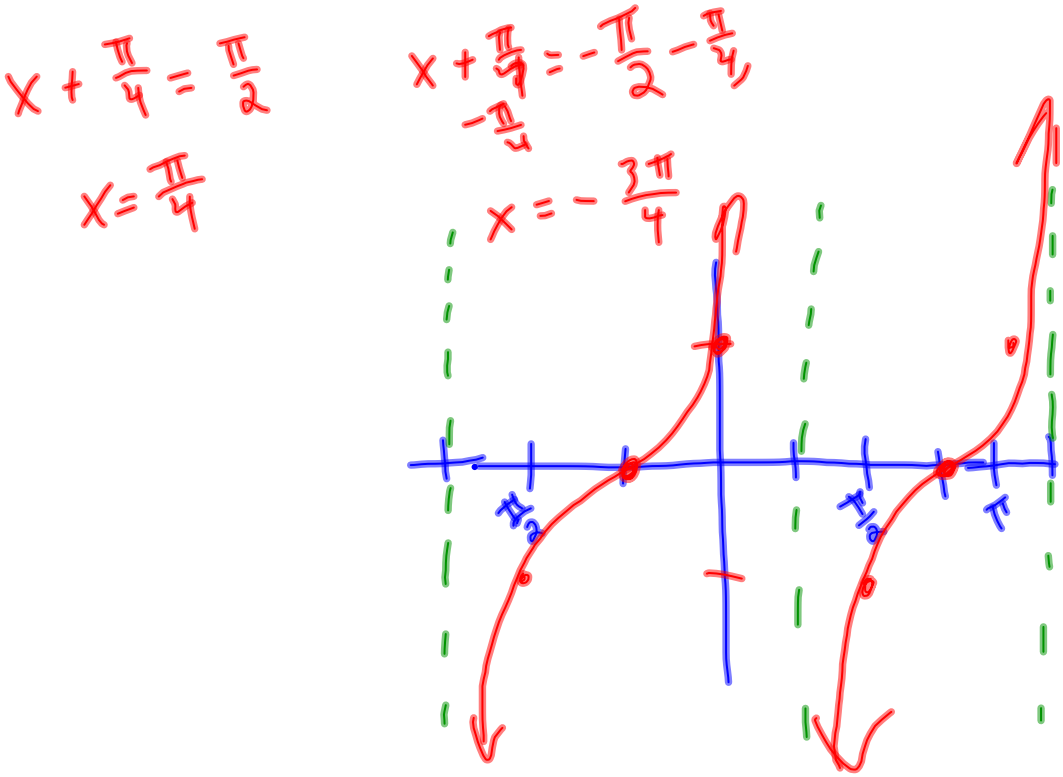
2. find x-int. half way between asymptotes

3. find points 1/4 and 3/4 between asymptotes for x and y = -a and a

Graph: $y = 2\tan\left(\frac{x}{2}\right)$ $-\pi < x < 3\pi$

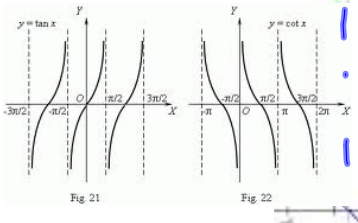


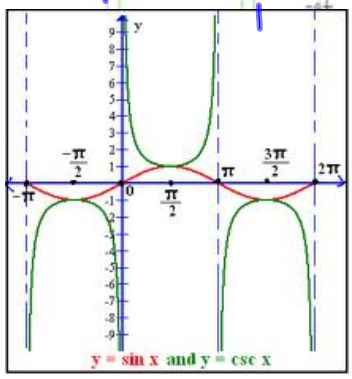
Graph: $y = \tan\left(x + \frac{\pi}{4}\right)$



starting on pg.501 are the graphs for sec, csc and cot

sec/cos



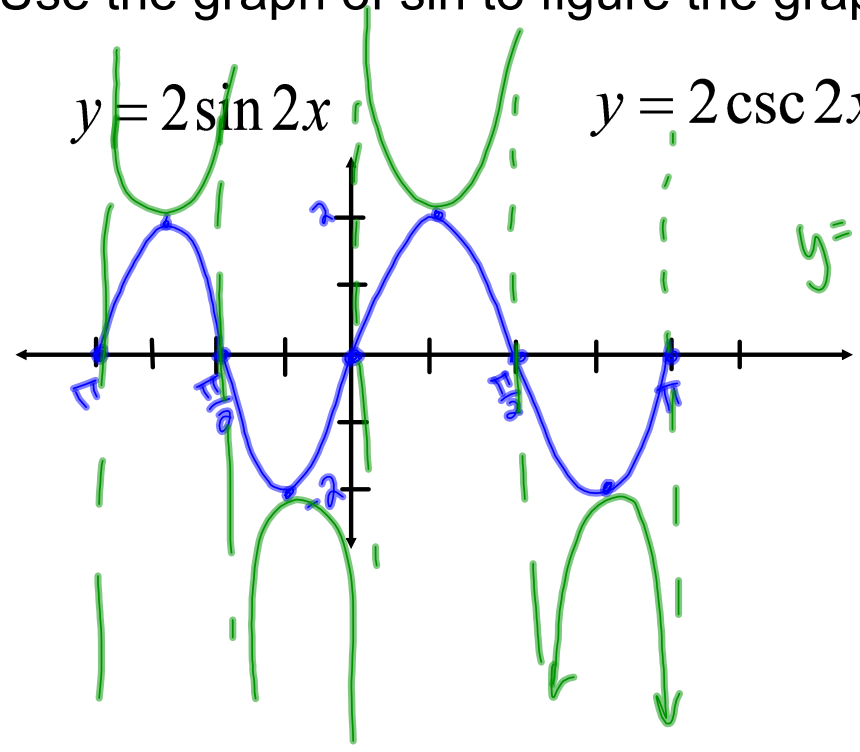


$\sin x = \frac{1}{\csc x}$

Use the graph of sin to figure the graph of csc.

$y = 2\sin 2x$ $y = 2\csc 2x$

$y = 2\frac{1}{\sin 2x}$



Suggested work: Ch 4.6 pg.506 #'s 1-4,7,9,25