

Sec 4.6 Graphing Tan & Cot pg #1-8, 10, 21, 37, 38

#1)  $y = \sec \frac{x}{2}$

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

$2\pi \cdot \frac{2}{1}$   
 $= 4\pi$

Matches graph (g)

#2)  $y = \tan \frac{x}{2}$

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

$= 2\pi$

matches graph (d)

#3)  $y = \tan 2x$

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

matches graph (f)

#4)  $y = 2 \csc x$

Period =  $2\pi$

matches graph (a)

#5)  $y = \cot \frac{\pi x}{2}$

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

$\pi \cdot \frac{2}{\pi}$

$= 2$

Matches graph (b)

#6)  $y = \frac{1}{2} \sec \frac{\pi x}{2}$

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

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

$= 4$

matches graph (h)

#7)  $y = -\csc x$

Period =  $2\pi$

matches graph (e)

#8)  $y = -2 \sec 2\pi x$

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

$= 1$

matches graph (c)

#10)  $y = \frac{1}{4} \tan 2x$

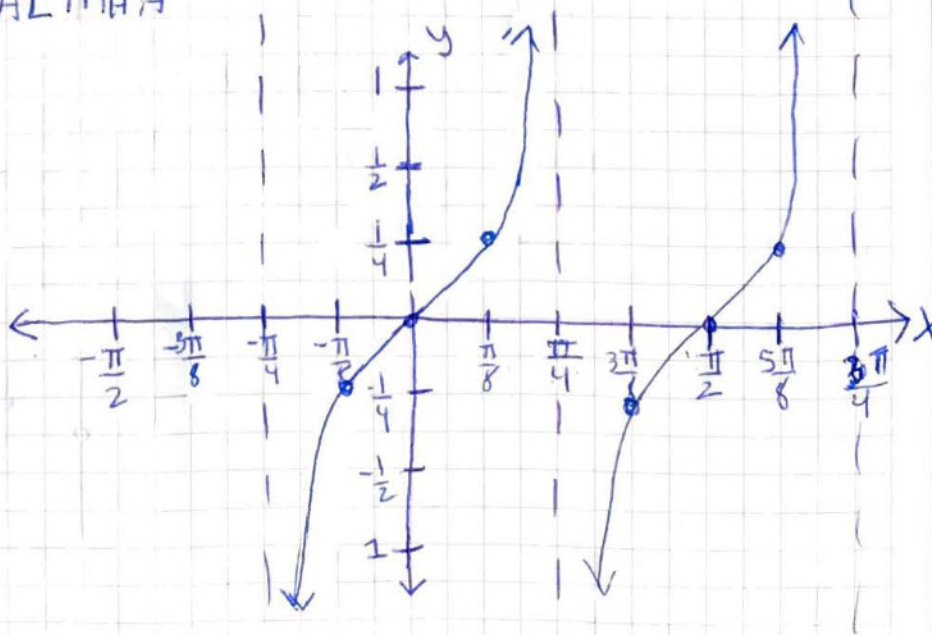
Period =  $\frac{\pi}{2}$

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

$= \frac{\pi}{8}$

$-\frac{1}{4}$   $0$   $+\frac{1}{4}$   
 ALMHA

$x$	
$-\frac{\pi}{4}$	undef
$-\frac{\pi}{8}$	$-\frac{1}{4}$
$0$	$0$
$\frac{\pi}{8}$	$+\frac{1}{4}$
$\frac{\pi}{4}$	undef

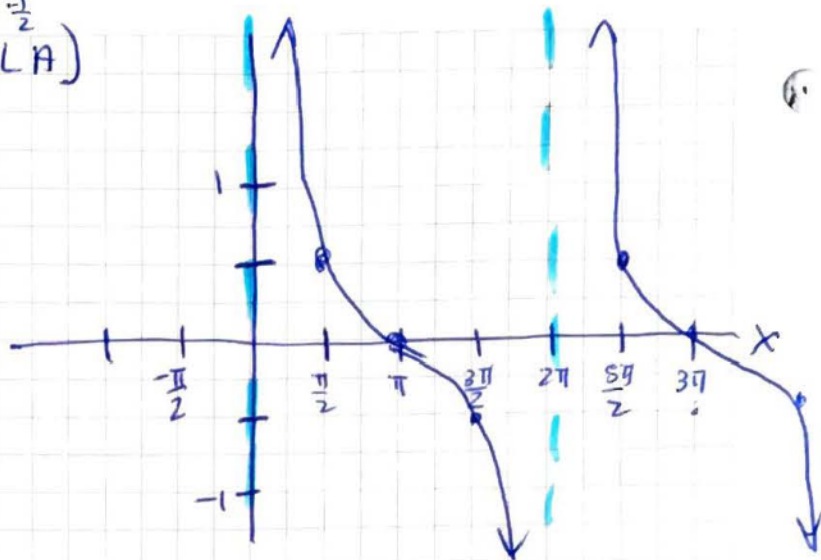


#21)  $y = \frac{1}{2} \cot \frac{1}{2} x \rightarrow (A \pm M \cdot L \cdot A)$

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

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

X		
0	undef	
$\frac{\pi}{2}$	$\frac{1}{2}$	
$\pi = \frac{2\pi}{2}$	0	
$\frac{3\pi}{2}$	$-\frac{1}{2}$	
$2\pi = \frac{4\pi}{2}$	undef	

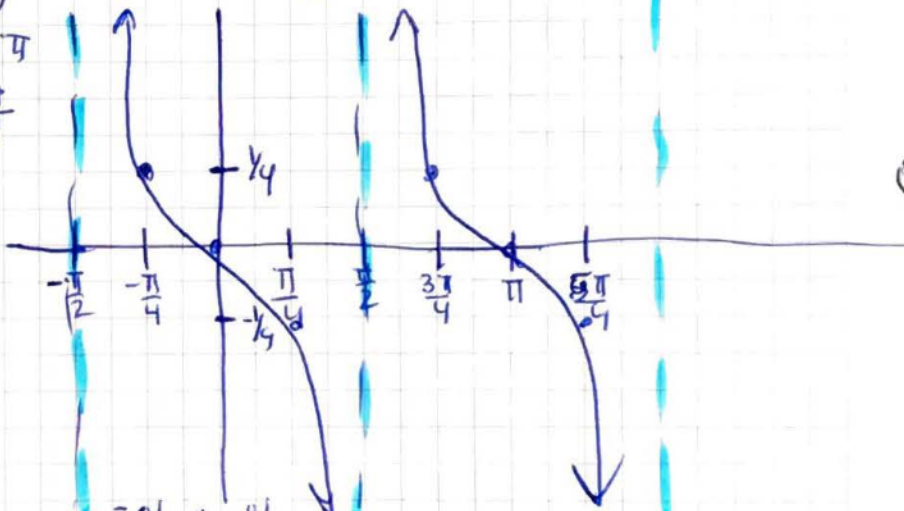


#37)  $y = \frac{1}{4} \cot(x + \frac{\pi}{2}) \rightarrow (A \pm M \cdot L \cdot A)$

Period =  $\pi$

Inc:  $\frac{\pi}{4}$

X	New	
0	$-\frac{\pi}{2}$	undef
$-\frac{\pi}{4}$	$-\frac{\pi}{4}$	$\frac{1}{4}$
$\frac{\pi}{2} = \frac{2\pi}{4}$	0	0
$\frac{3\pi}{4}$	$\frac{\pi}{4}$	$-\frac{1}{4}$
$\pi = \frac{4\pi}{4}$	$\frac{2\pi}{4} = \frac{\pi}{2}$	undef



#38)  $y = -.01 \tan \frac{\pi}{4}(x+1) \rightarrow (A \pm M \cdot L \cdot A)$

Period =  $\frac{\pi}{\pi/4} = 4$

Inc  $\frac{\pi}{4} = 1$

X	New	
-2	-3	undef
-1	-2	$-.01$
0	-1	0
1	0	$-.01$
2	1	undef

