

# 2021 DECEMBER

SUN	MON	TUE	WED	THU	FRI	SAT
28	29 f	30 i	1 n	2 i	3 s	4
5	6	7	8 h	9 c	10 h	11
12	13 6	14	15 review	16 review	17 Group Quiz	18
19	20 review	21 1,2	22 3,4	23 5,6	24 no School	25
26	27	28	29	30	31	1
2	3 return to school	4	5	6	7	8

**All missing or incomplete work from ch.5 must be turned in by Friday!!**

- **Group quiz is Friday**...please make arrangements in advance if you know you will be absent that day.
- **Extra credit passes** will be turned in next week on Monday and added to the homework category.
- **Final exam day:**  
45 minutes finish review assignment,  
75 minutes complete unit 5 test.



## 5.4 (part 1) CHECK ANSWERS #3-8

3. II

4. III

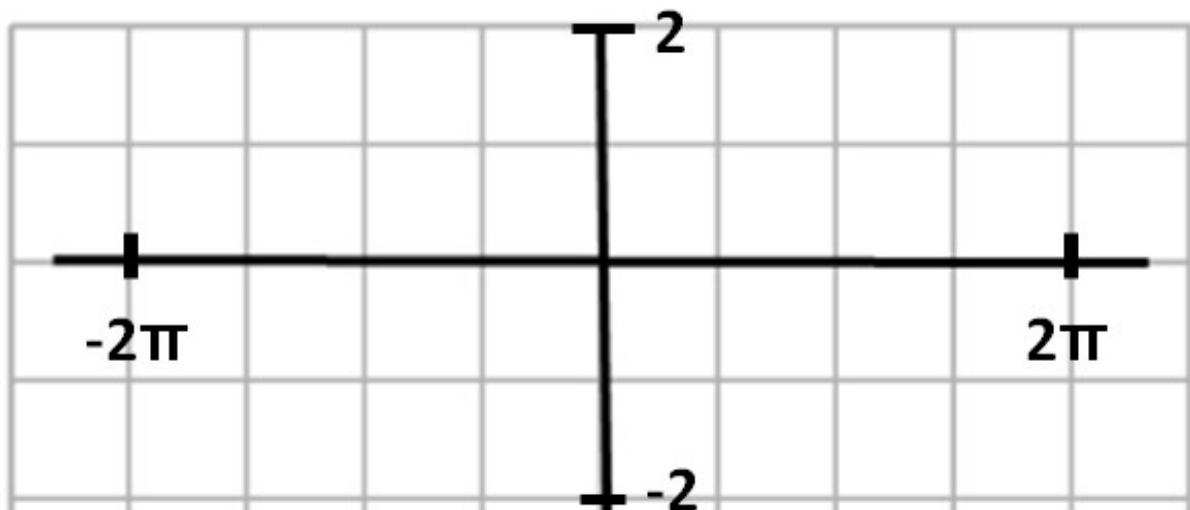
5. VI

6. I

7. IV

8. V

1. WARM-UP: graph  $y = \sin x$   $-2\pi \leq x \leq 2\pi$



a.  $\sin(-2\pi)$

b.  $\sin\left(-\frac{\pi}{2}\right)$

c.  $\sin(0)$

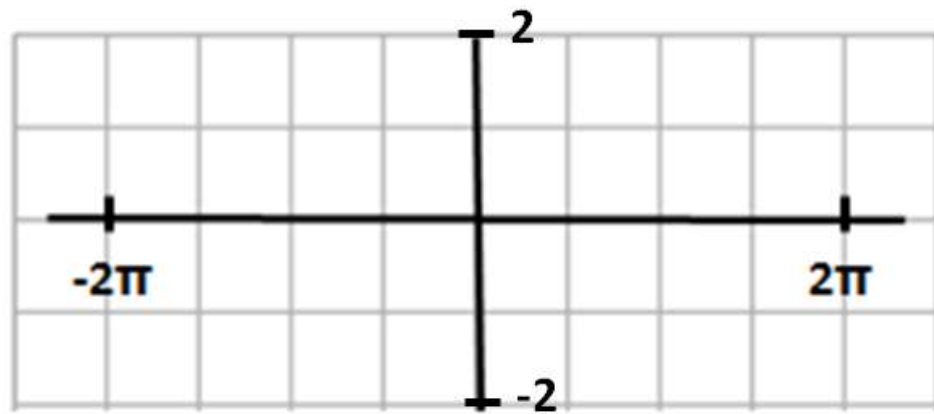
d.  $\sin\left(\frac{3\pi}{2}\right)$

e.  $\sin\left(\frac{5\pi}{2}\right)$

f.  $\sin\left(-\frac{7\pi}{2}\right)$

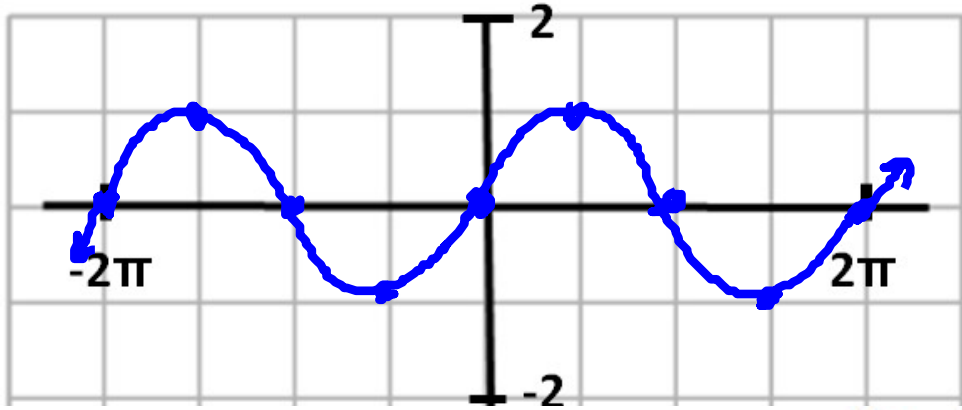
**WARM-UP**  
**Sketch a graph for #1 and #2 on today's handout, then answer parts a – f by referring to each graph**

2. WARM-UP: graph  $y = \cos x$   $-2\pi \leq x \leq 2\pi$



- a.  $\cos(-2\pi)$
- b.  $\cos\left(-\frac{\pi}{2}\right)$
- c.  $\cos(0)$
- d.  $\cos\left(\frac{3\pi}{2}\right)$
- e.  $\cos\left(\frac{5\pi}{2}\right)$
- f.  $\cos(-3\pi)$

1. WARM-UP: graph  $y = \sin x$   $-2\pi \leq x \leq 2\pi$



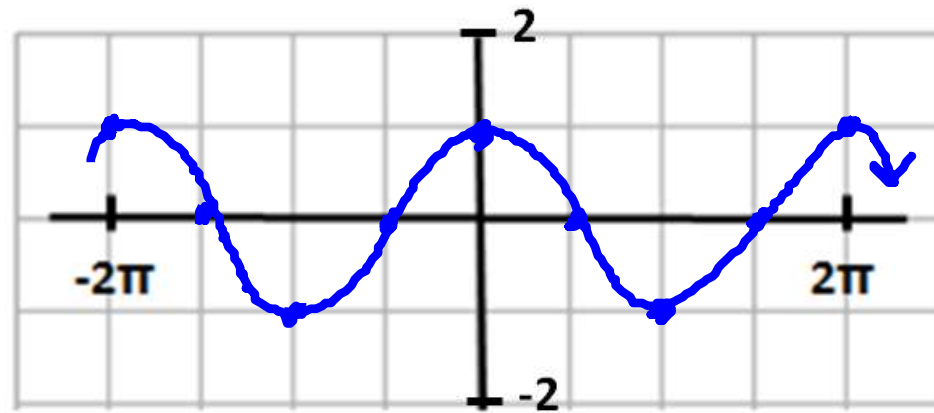
**Check  
your  
answers!**

- a.  $\sin(-2\pi) = 0$       d.  $\sin\left(\frac{3\pi}{2}\right) = -1$
- b.  $\sin\left(-\frac{\pi}{2}\right) = -1$       e.  $\sin\left(\frac{5\pi}{2}\right) = 1$
- c.  $\sin(0) = 0$       f.  $\sin\left(-\frac{7\pi}{2}\right) = 1$



**Check  
your  
answers!**

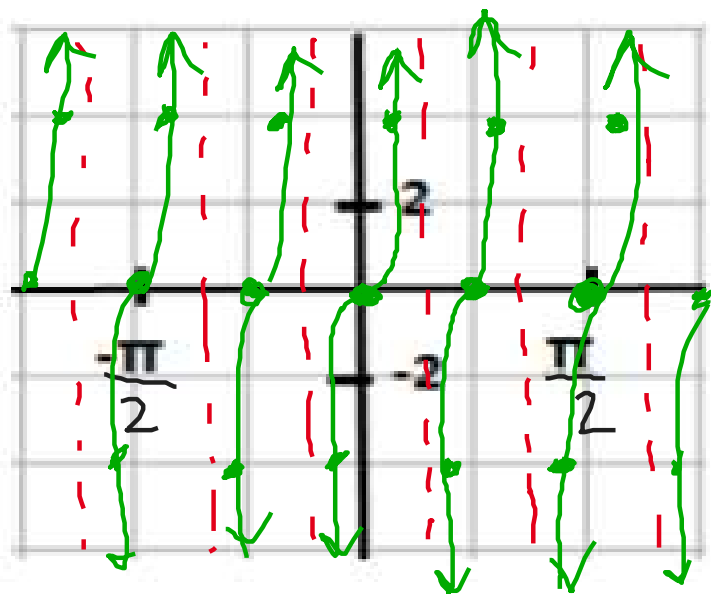
2. WARM-UP: graph  $y = \cos x$   $-2\pi \leq x \leq 2\pi$



- a.  $\cos(-2\pi) = 1$
- b.  $\cos\left(-\frac{\pi}{2}\right) = 0$
- c.  $\cos(0) = 1$
- d.  $\cos\left(\frac{3\pi}{2}\right) = 0$
- e.  $\cos\left(\frac{5\pi}{2}\right) = 0$
- f.  $\cos(-3\pi) = -1$

46. equation:

$$y = 4 \tan(4x - 2\pi)$$



$$y = 4 \tan 4 \left( x - \frac{\pi}{2} \right) \xrightarrow{\text{right}}$$

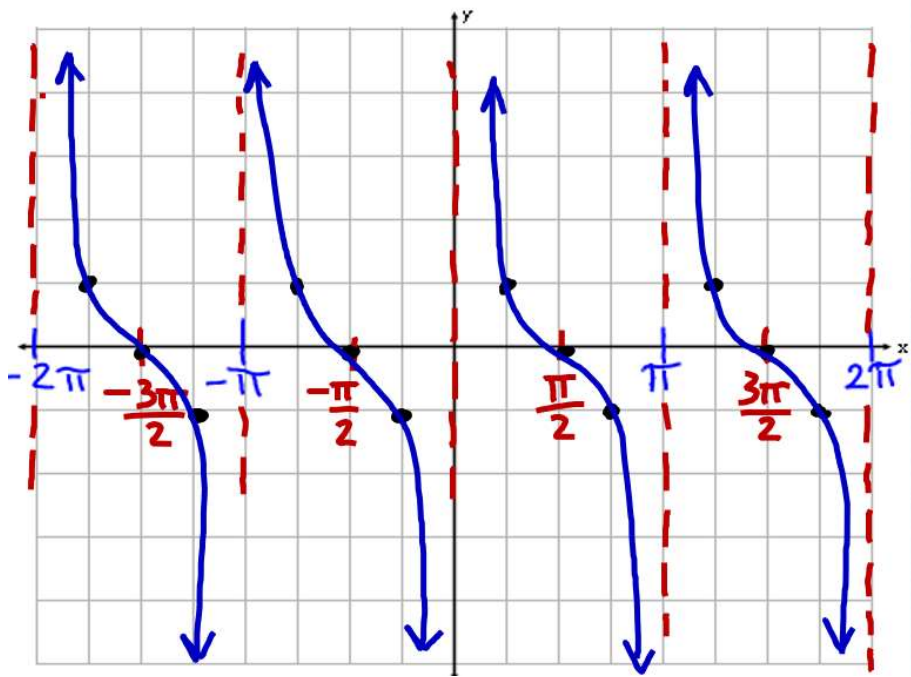
$$\text{per} = \frac{\pi}{k} = \left( \frac{\pi}{4} \right)$$



## REMINDER:

$$\tan x, \cot x \rightarrow \textit{per} = \frac{\pi}{k}$$

$$\sin x, \cos x, \csc x, \sec x \rightarrow \textit{per} = \frac{2\pi}{k}$$



$$y = \cot x$$

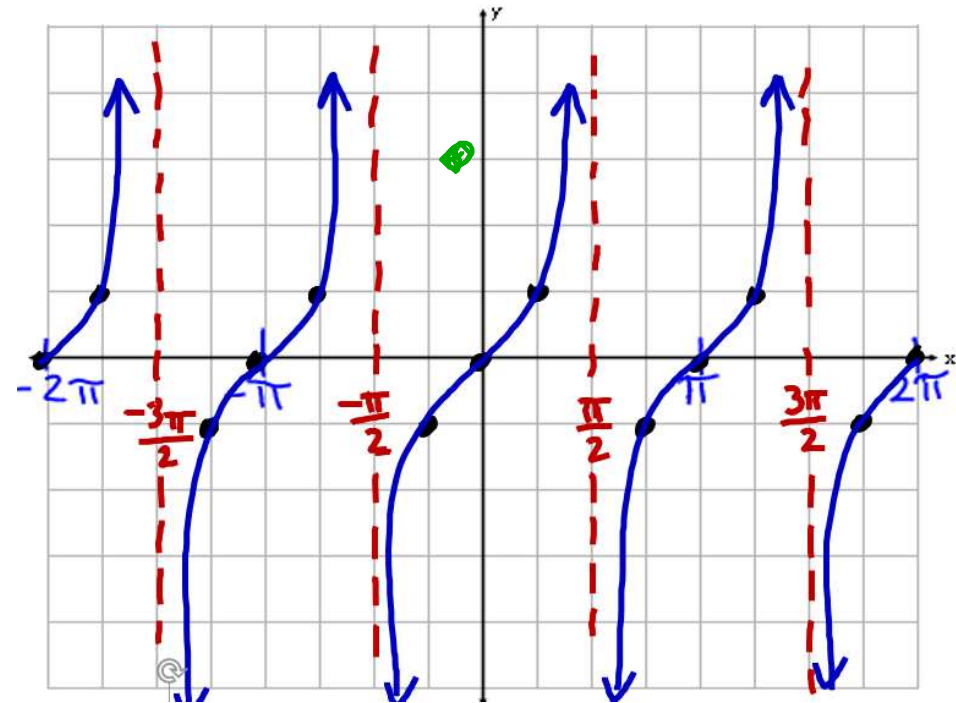
Parent graph for  $\cot x$ :

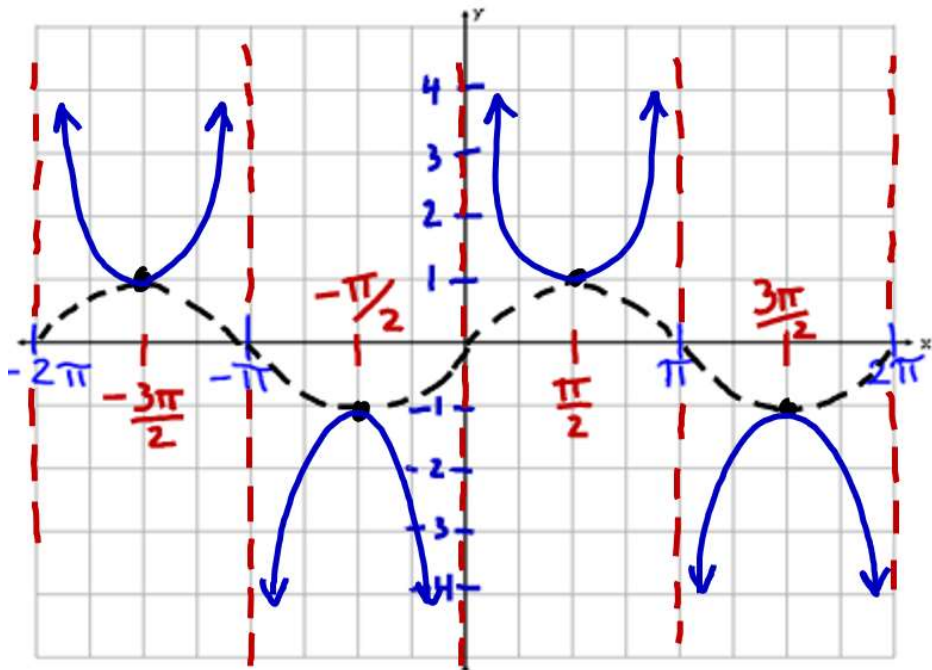
decreasing,  
 period =  $\pi$ ,  
 asymptote thru  $(0,0)$

Parent graph for  $\tan x$ :

increasing,  
 period =  $\pi$ ,  
 Curve passes thru  $(0,0)$

$$y = \tan x$$

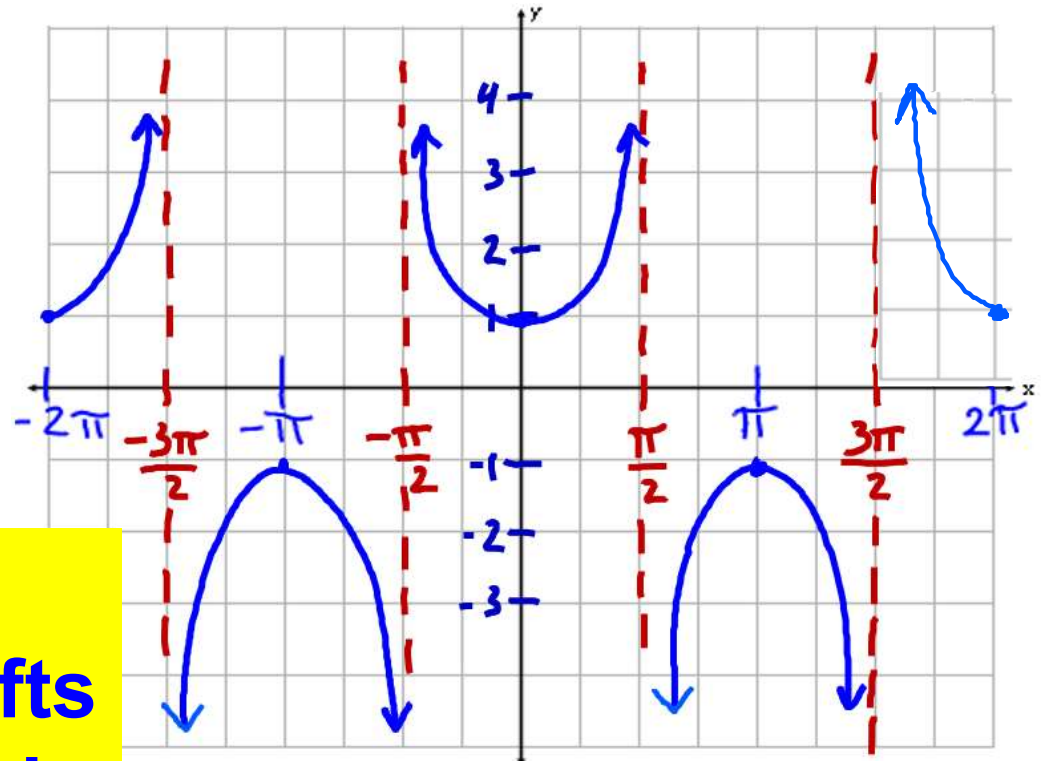


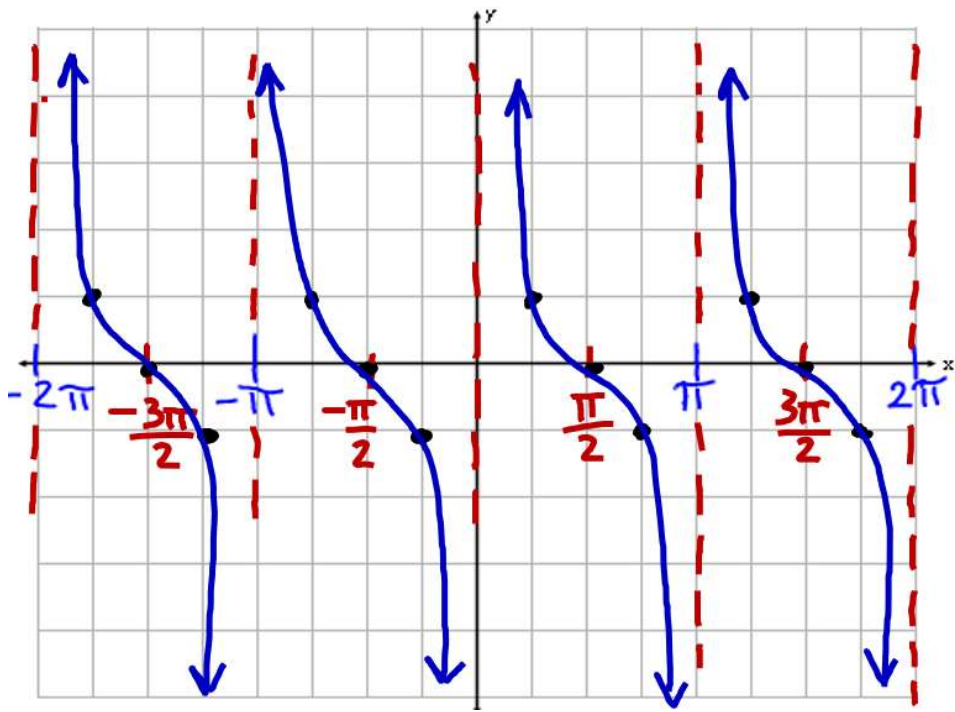


$$y = \csc x$$

Parent graphs without vertical or horizontal shifts and no changes in period or amplitude.

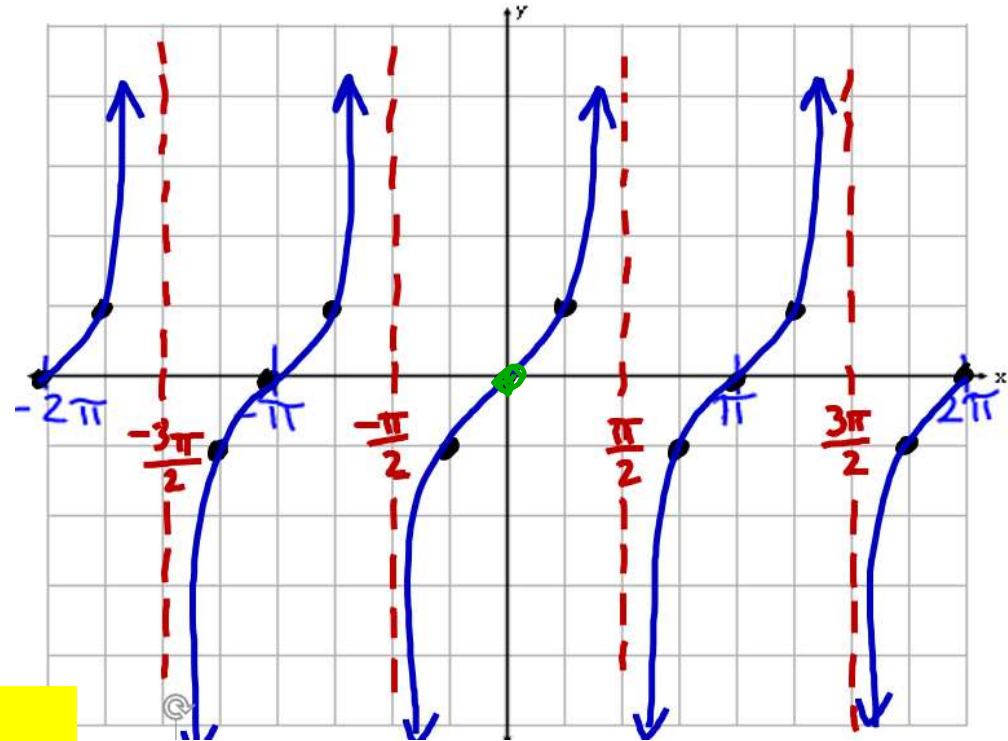
$$y = \sec x$$





$$y = \cot x$$

$$y = \tan x$$



Parent graphs without vertical or horizontal shifts and no changes in period or amplitude.