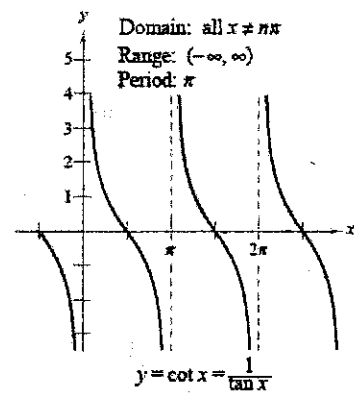
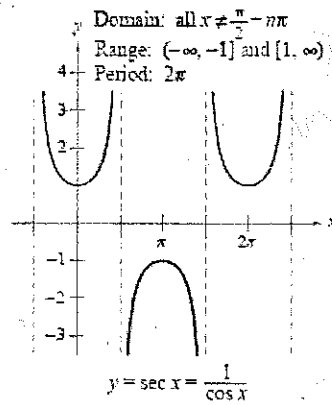
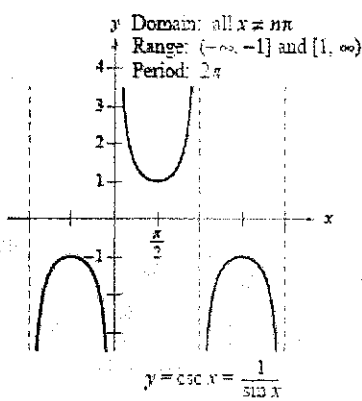
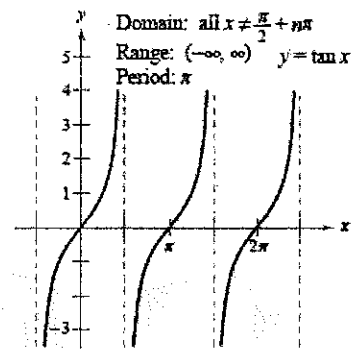
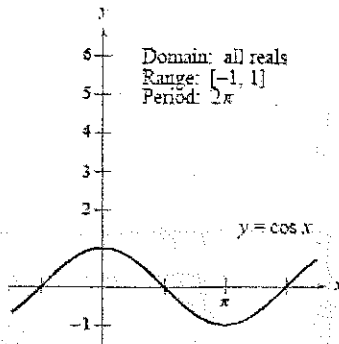
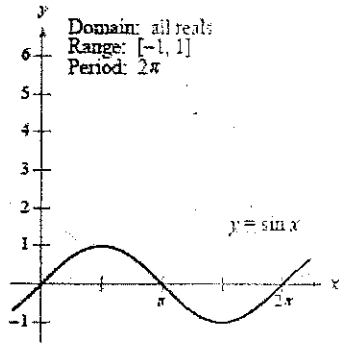


Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

Here is a nice summary of all the graphs:

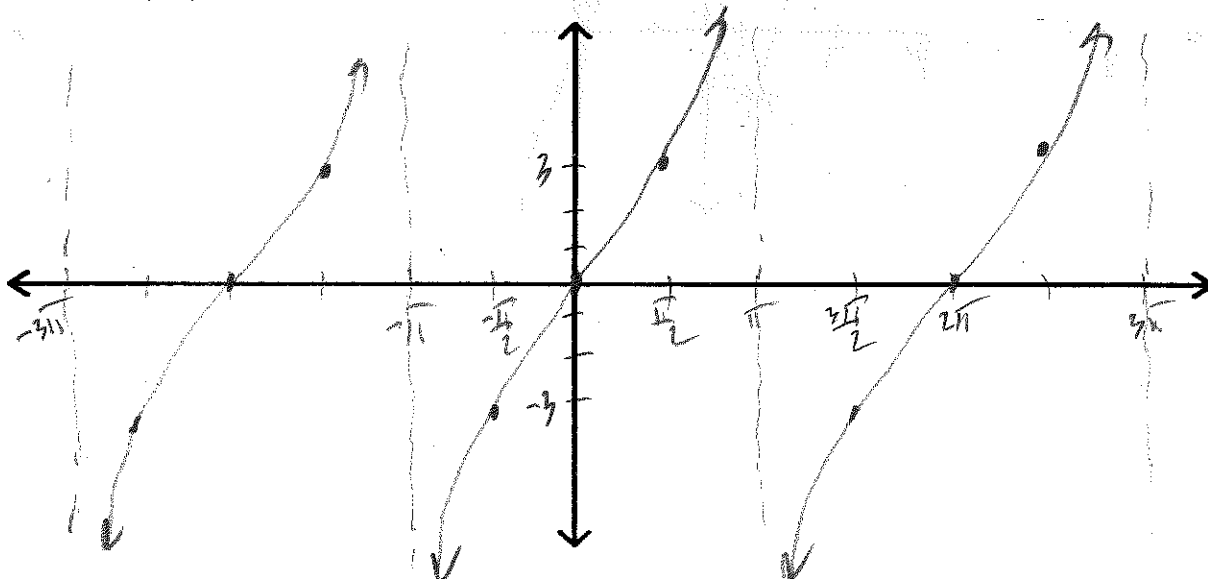


The graphs of the six trigonometric functions

For the following equations, graph at least one period and at least a length of 2π

1. $y = 3 \tan\left(\frac{1}{2}x\right)$

$\frac{1}{2}x = \frac{\pi}{2} \Rightarrow x = \pi$
 $\frac{1}{2}x = -\frac{\pi}{2} \Rightarrow x = -\pi$

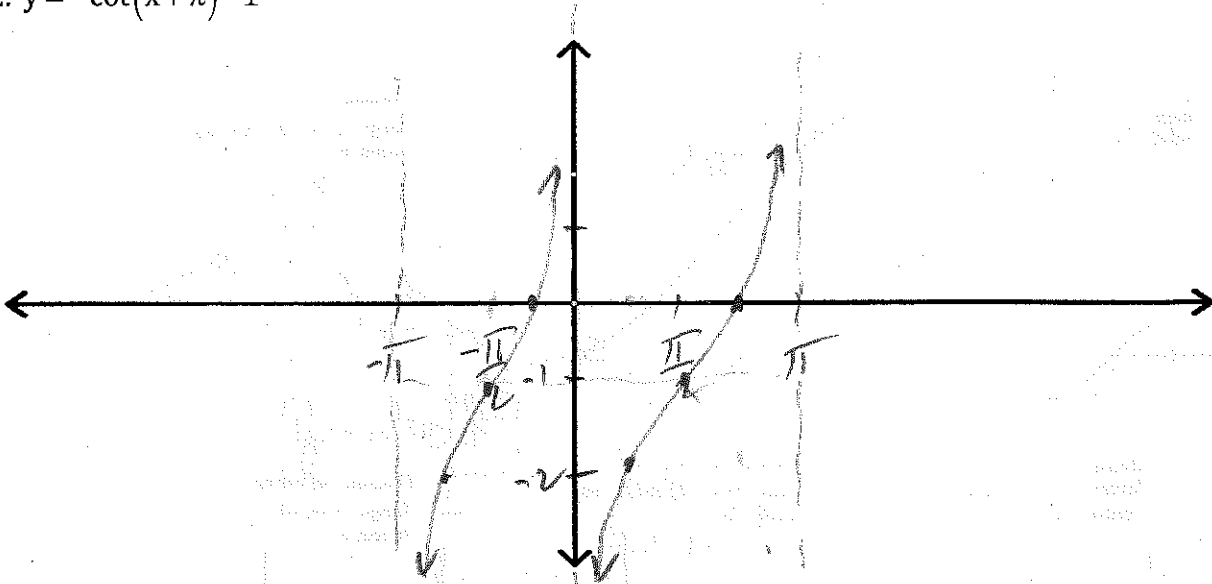


Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

$$x + \pi = 0 \rightarrow x = -\pi$$

$$x + \pi = \pi \rightarrow x = 0$$

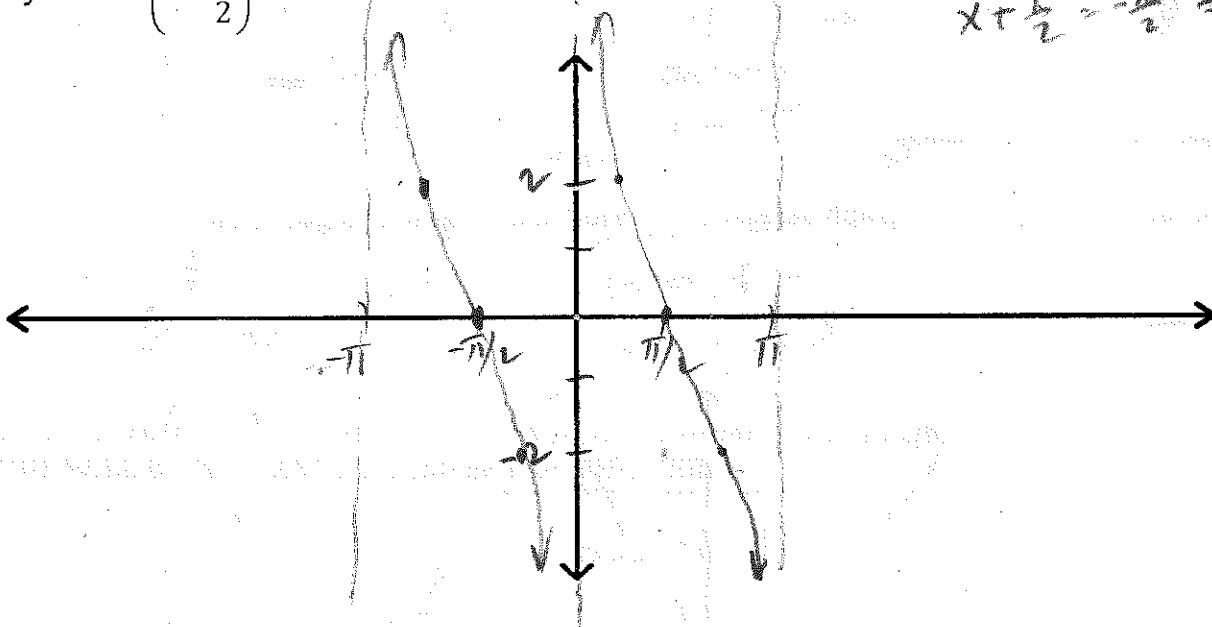
2. $y = -\cot(x + \pi) - 1$



3. $y = -2\tan\left(x + \frac{\pi}{2}\right)$

$$x + \frac{\pi}{2} = \frac{\pi}{2} \rightarrow x = 0$$

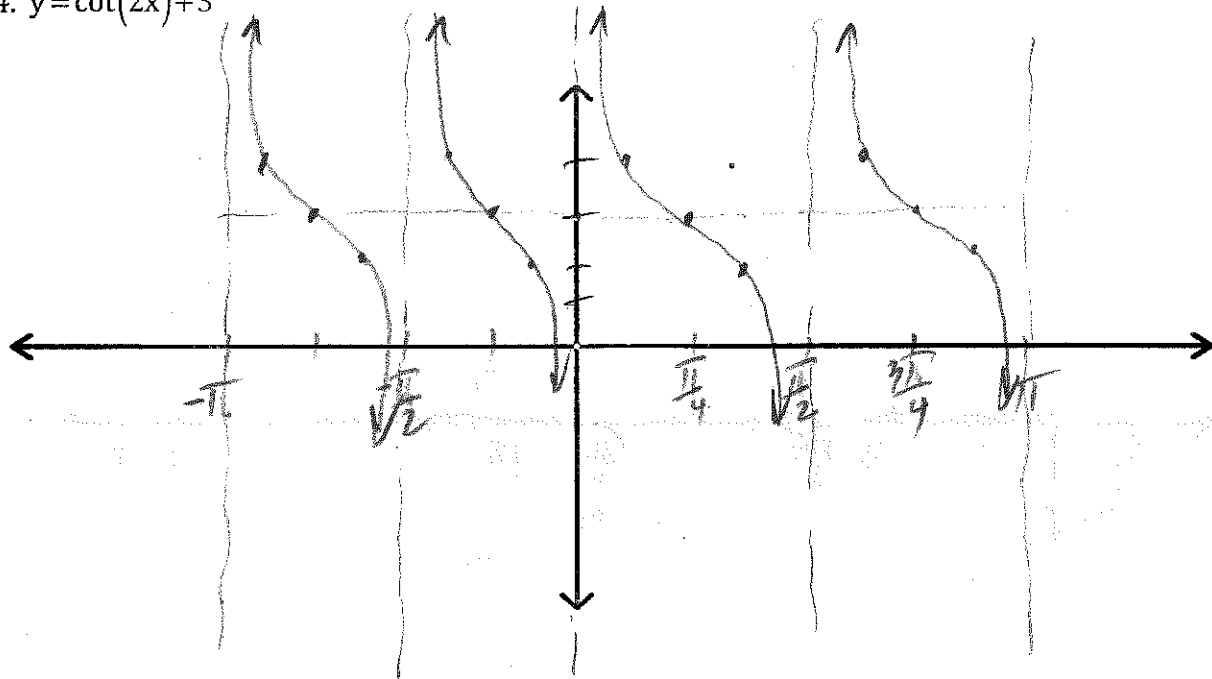
$$x + \frac{\pi}{2} = -\frac{\pi}{2} \rightarrow x = -\pi$$



Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

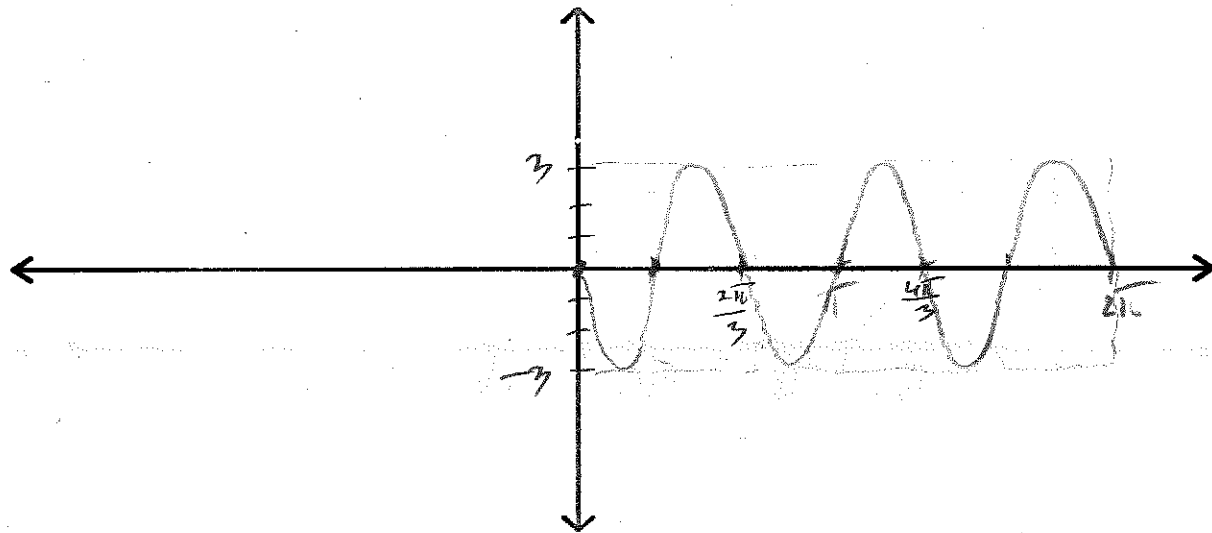
$2x = 0 \rightarrow x = 0$
 $2x = \pi \rightarrow x = \frac{\pi}{2}$

4. $y = \cot(2x) + 3$



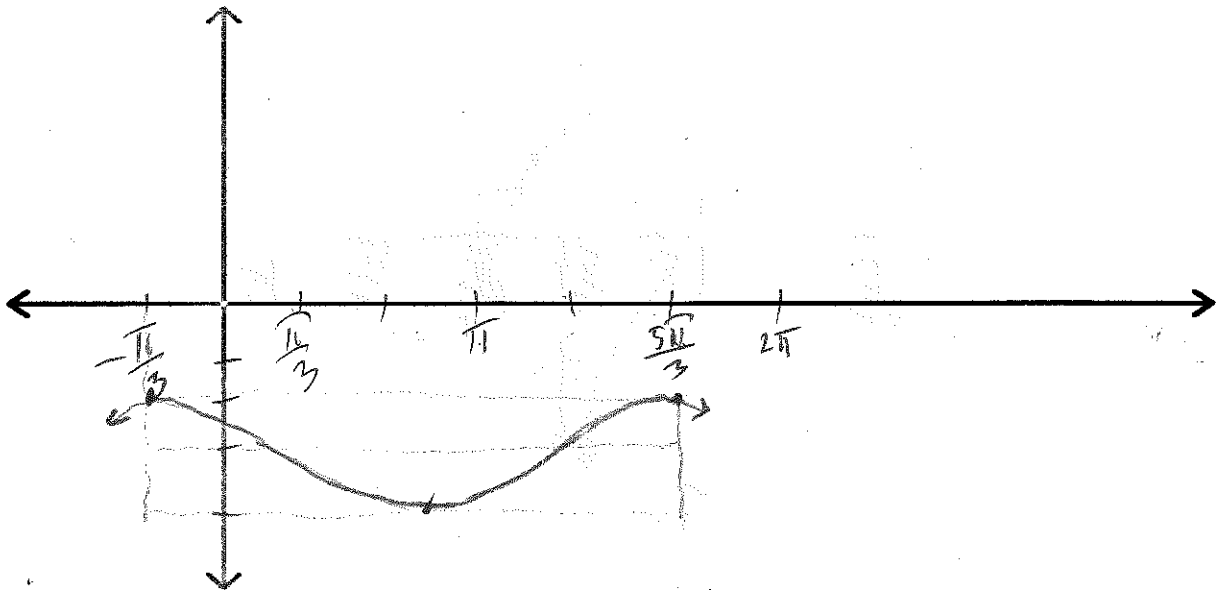
5. $y = -3\sin(3x)$

$P = \frac{2\pi}{3}$

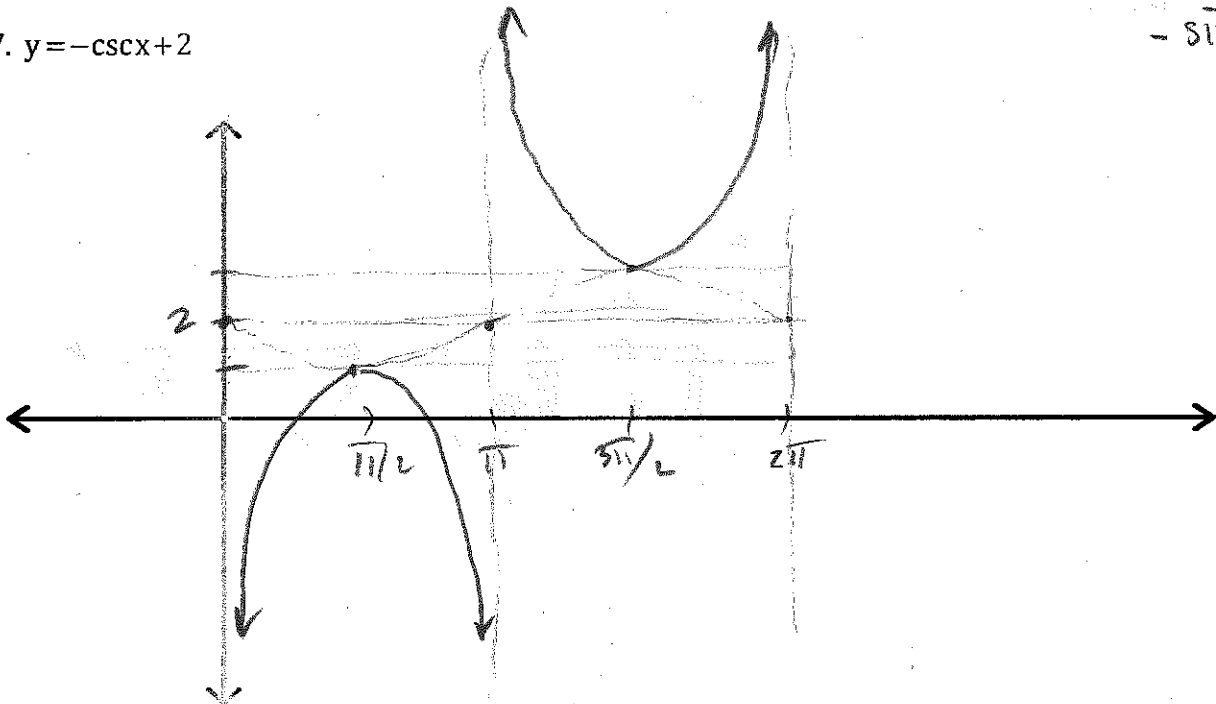


Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

6. $y = \cos\left(x + \frac{\pi}{3}\right) - 3$



7. $y = -\csc x + 2$

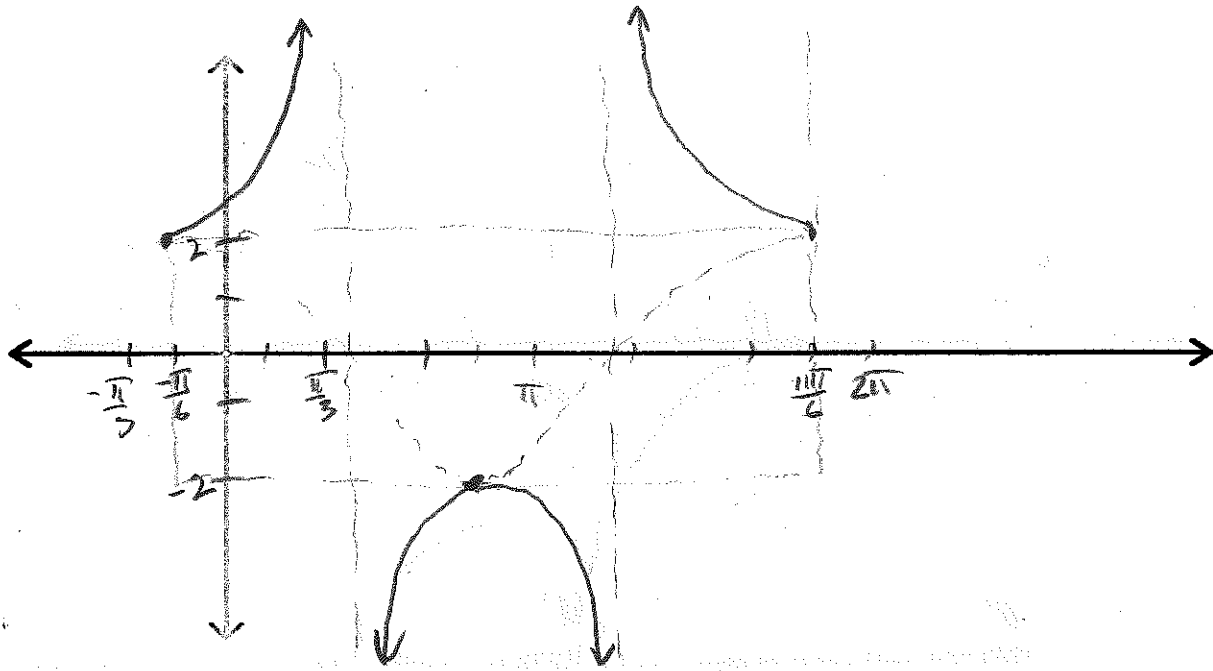


$-\sin x + 2$

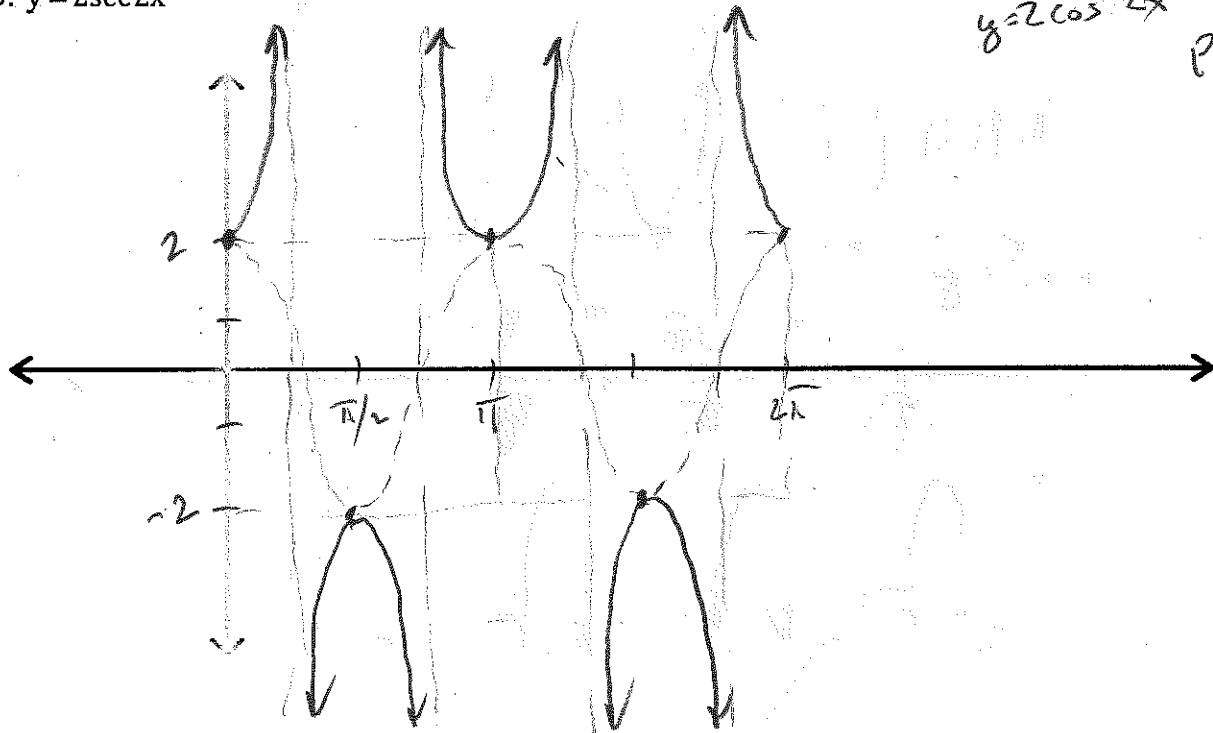
Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

$$2\cos\left(x + \frac{\pi}{6}\right)$$

8. $y = 2\sec\left(x + \frac{\pi}{6}\right)$



9. $y = 2\sec 2x$

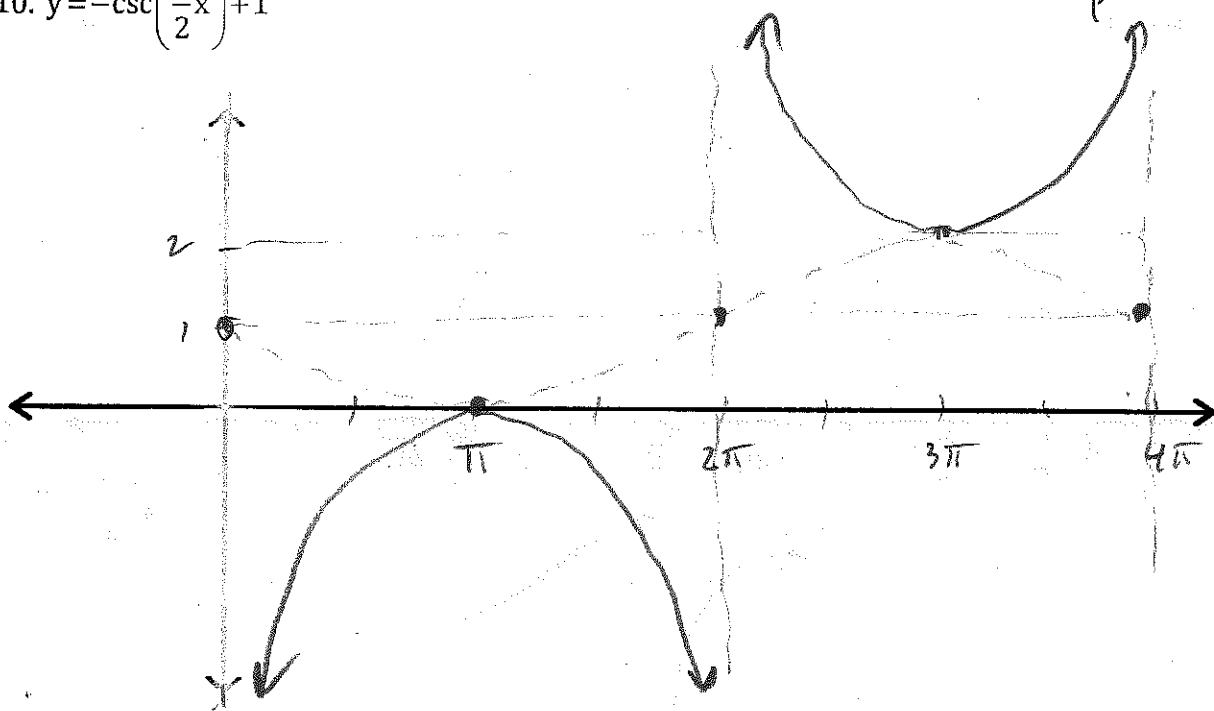


$$y = 2\cos 2x \quad p = \pi$$

Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

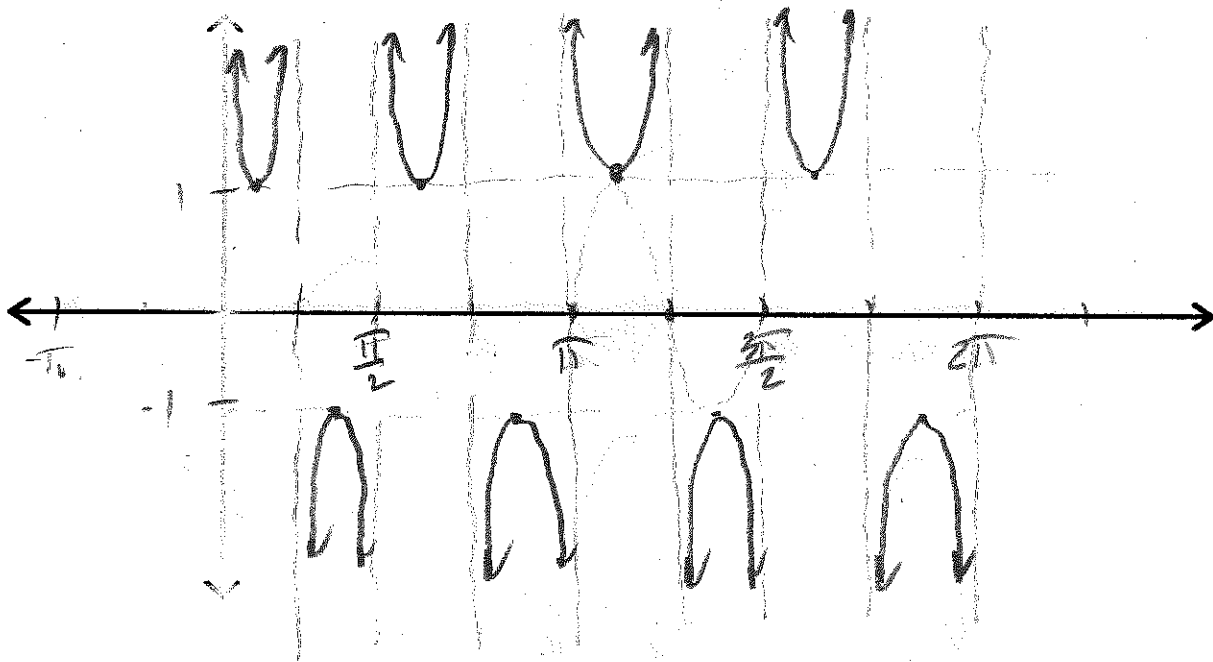
10. $y = -\csc\left(\frac{1}{2}x\right) + 1$

$y = -\sin\left(\frac{1}{2}x\right) + 1$
 $P = 4\pi$



11. $y = \csc 4(x - \pi)$

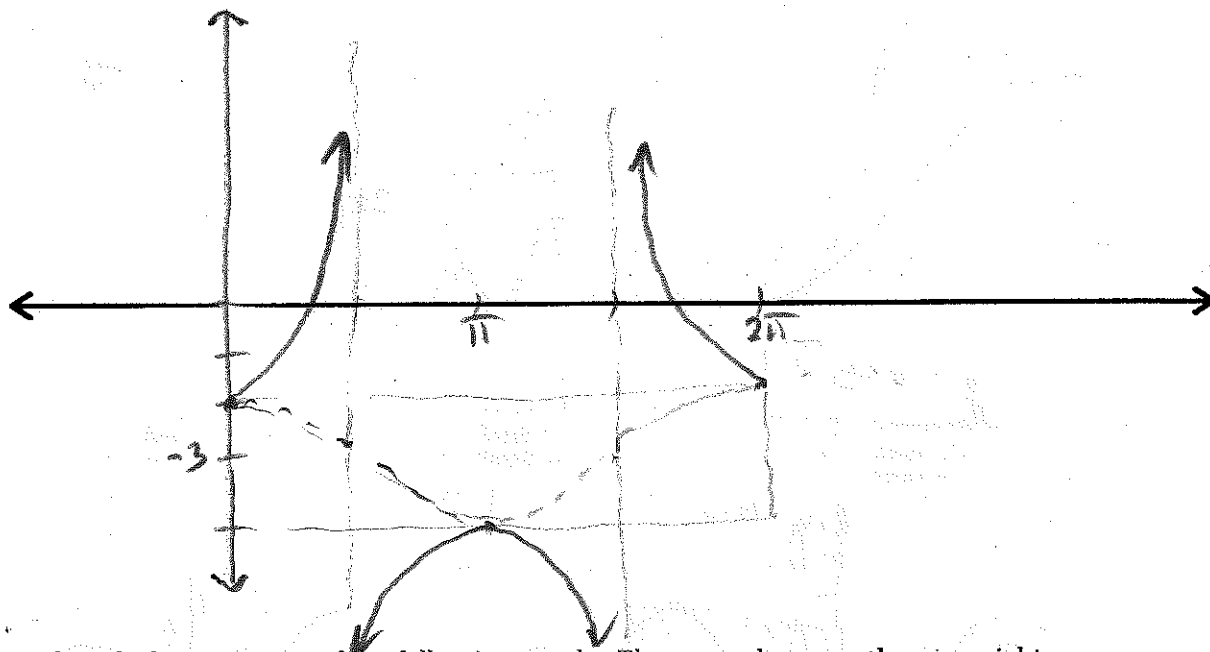
$y = \sin 4(x - \pi)$
 $P = \frac{\pi}{2}$



Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

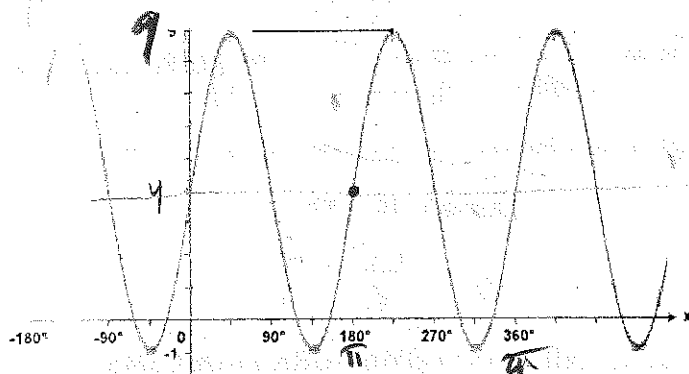
$$y = \cos x - 3$$

12. $y = \sec x - 3$



13. Identify the equations of the following graphs. There may be more than one right answer. Practice writing your answer multiple ways!

a)

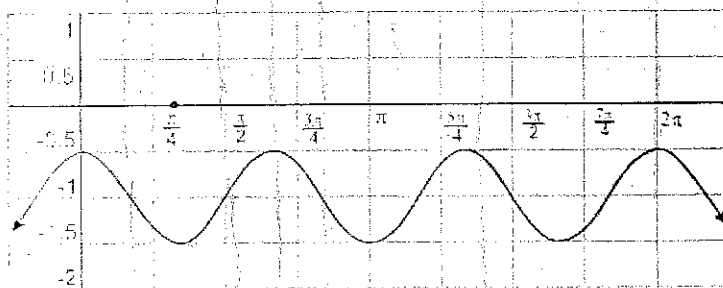


$$y = 5 \sin 2x + 4$$

or

$$y = 5 \cos 2(x - \frac{\pi}{4}) + 4$$

b)



$f = 3$

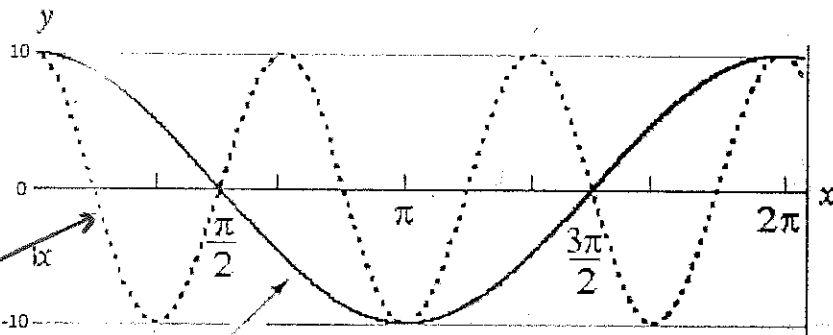
$$y = \frac{1}{2} \cos 3x - 1$$

or

$$y = \frac{1}{2} \sin 3(x - \frac{\pi}{2}) - 1$$

Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

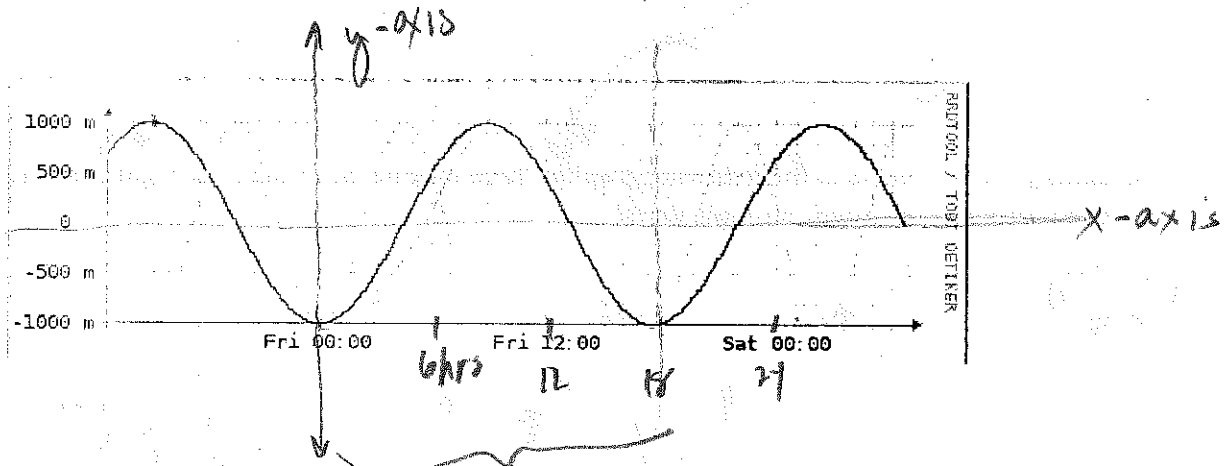
c)



$y = 10 \cos 3x$

$y = 10 \cos x$

d)



period 18 hrs
 $B = \frac{2\pi}{18} = \frac{\pi}{9}$

GO OVER YOUR LAST QUIZ TO STUDY, AND REDO HOMEWORK PROBLEMS. THIS WILL BE THE LAST ASSESSMENT OF THIS TERM!!

$y = -1000 \cos \frac{\pi}{9} x$