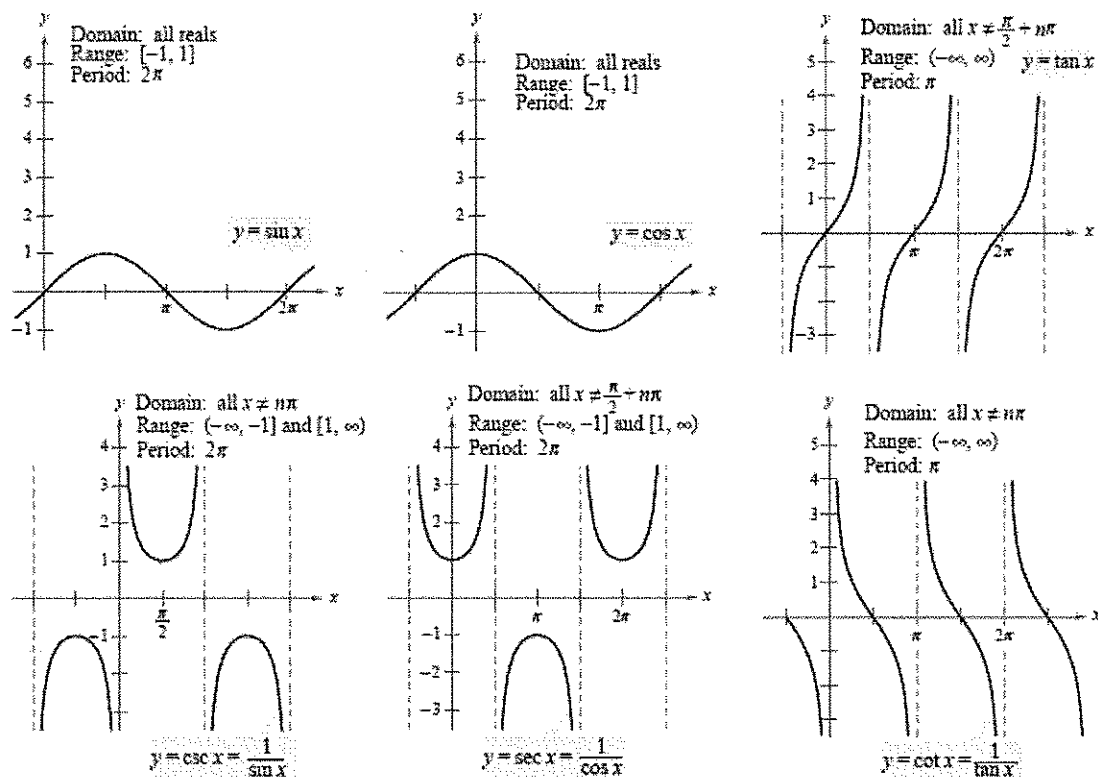


Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

Here is a nice summary of all the graphs:



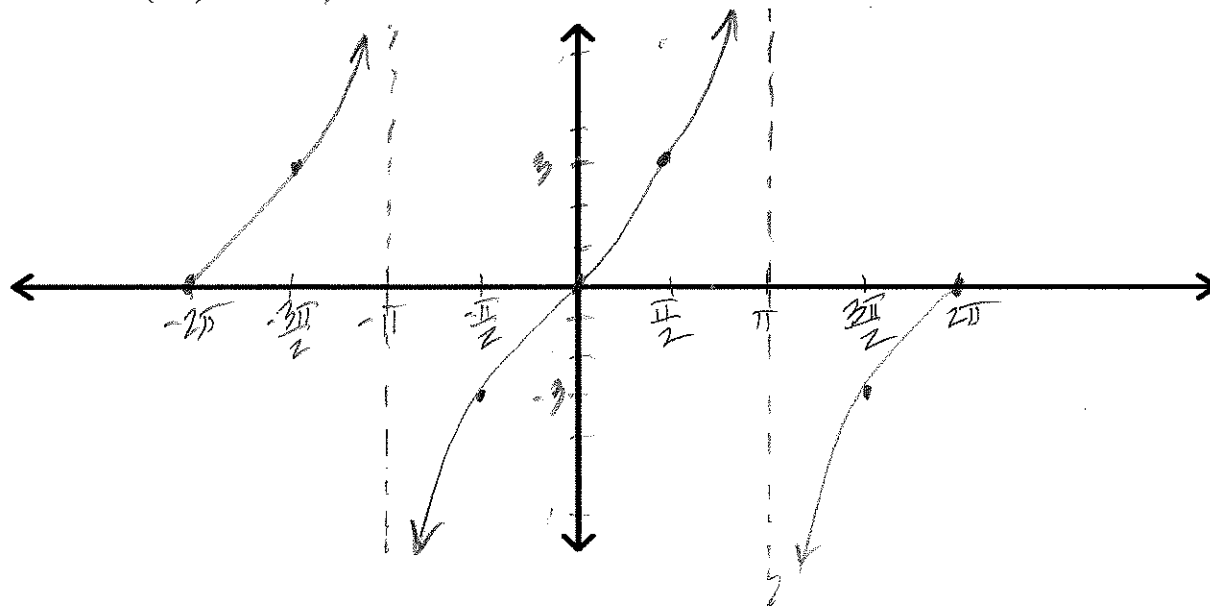
The graphs of the six trigonometric functions

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

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

Handwritten notes above the equation:

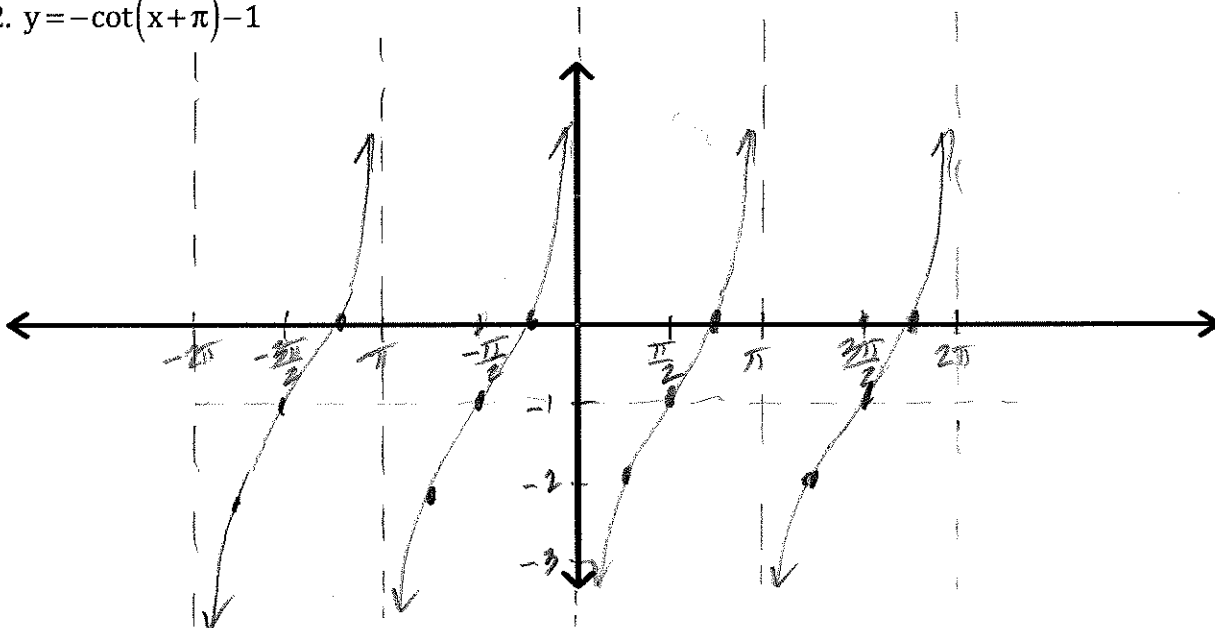
- $\frac{1}{2}x = \frac{\pi}{2}$
- $x = \pi$
- $\frac{1}{2}x = -\frac{\pi}{2}$
- $x = -\pi$



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

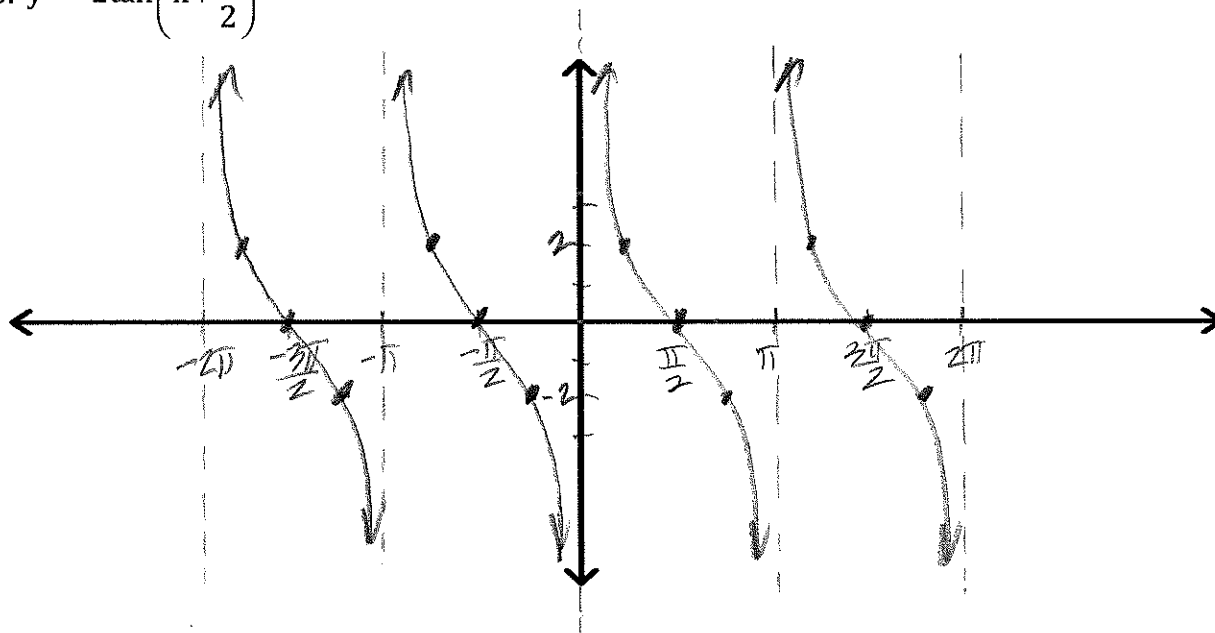
$$\begin{array}{ll} x + \pi = 0 & x + \pi = \pi \\ x = -\pi & x = 0 \end{array}$$

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



$$\begin{array}{ll} x + \frac{\pi}{2} = -\frac{\pi}{2} & x + \frac{\pi}{2} = \frac{\pi}{2} \\ x = -\pi & x = 0 \end{array}$$

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



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

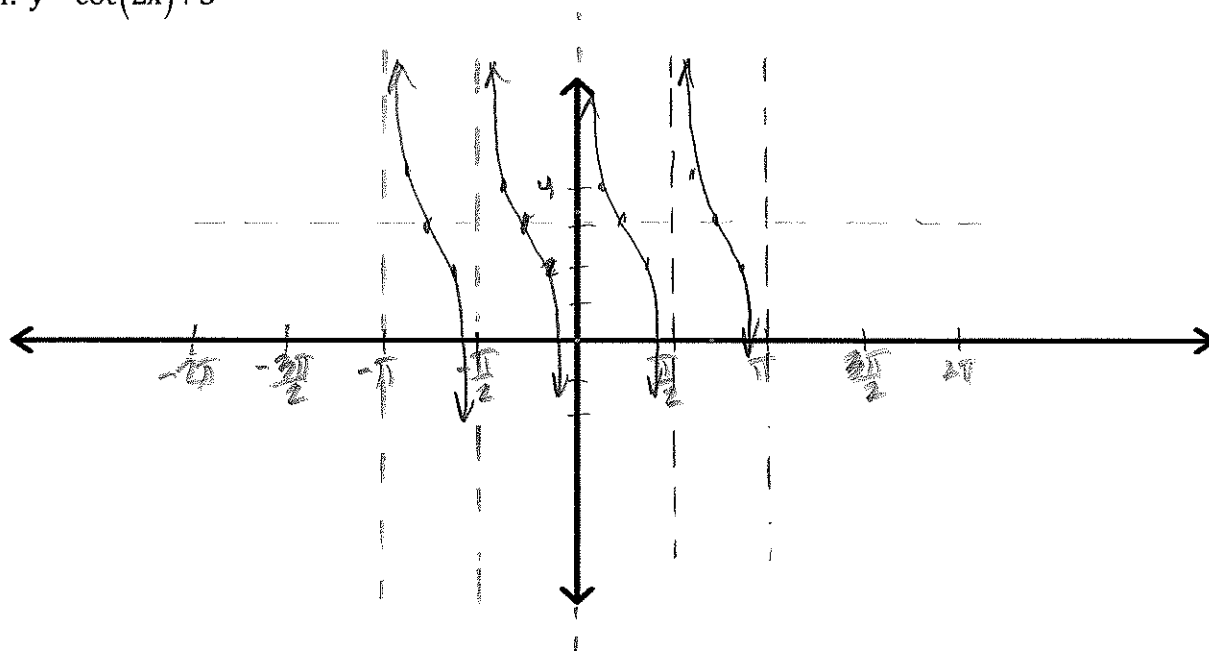
$$2x = \pi$$

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

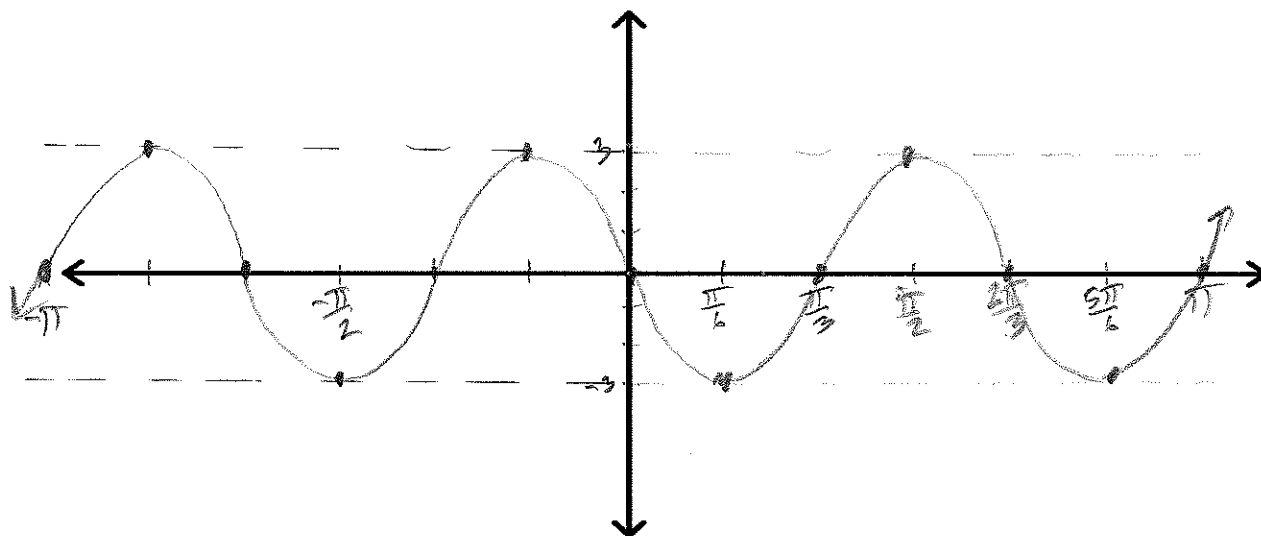
$$2x = 0$$

$$x = 0$$

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



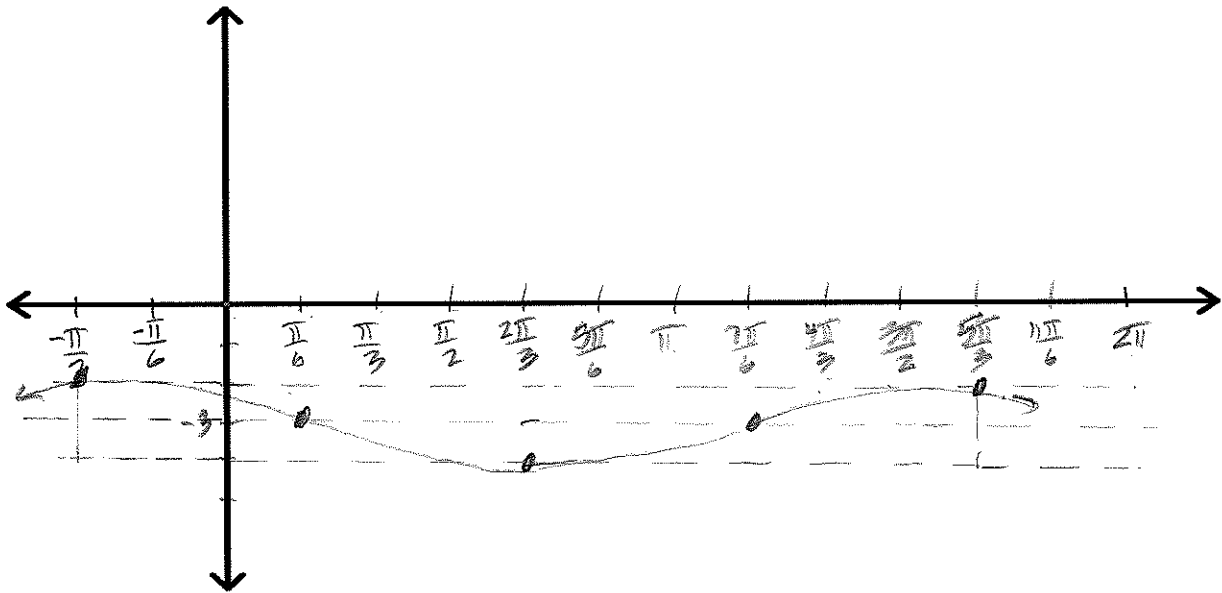
5. $y = -3\sin(3x)$ $P = \frac{2\pi}{3}$ $CP = \frac{\pi}{6}$



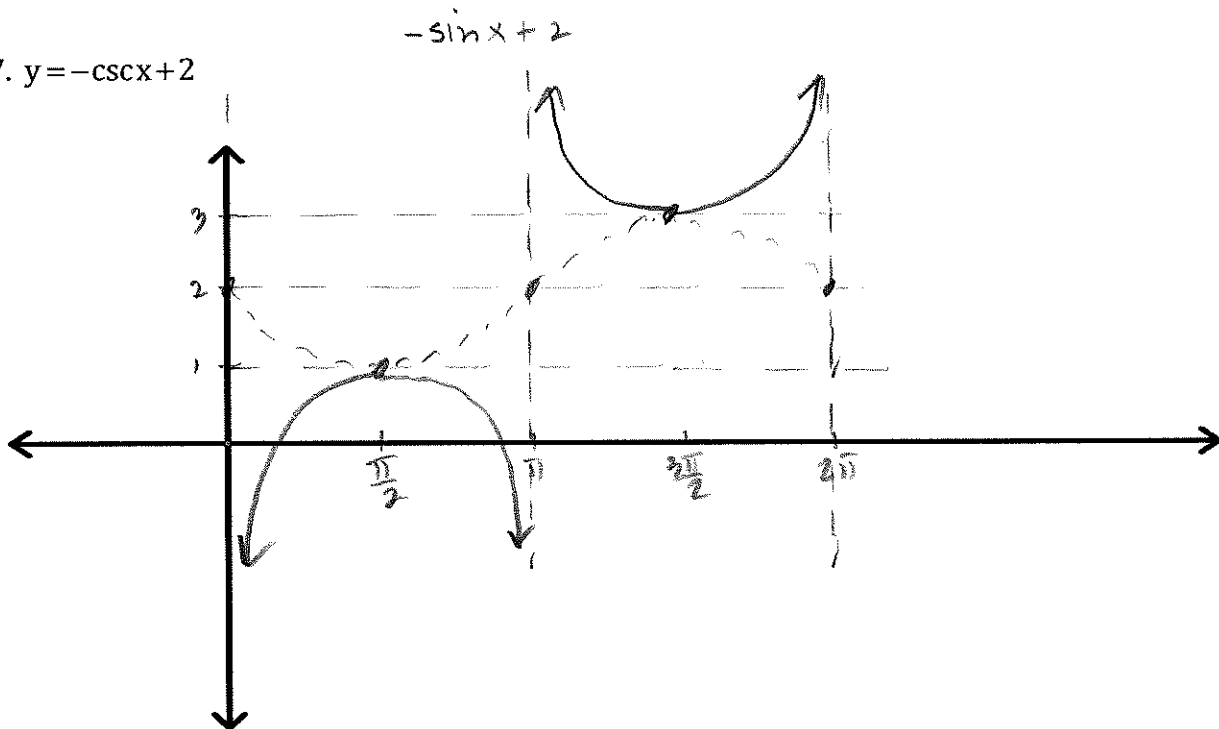
$$p = 2\pi \quad \text{CP every } \frac{2\pi}{4} = \frac{\pi}{2}$$

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

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



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

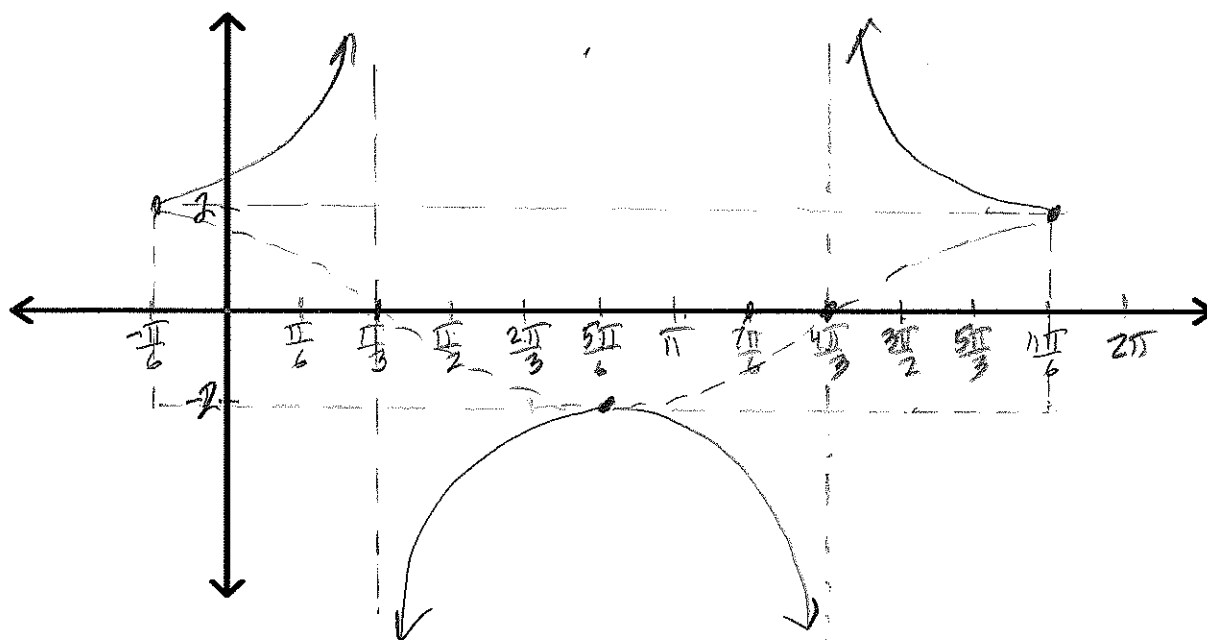


Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

CP every $\frac{\pi}{2}$

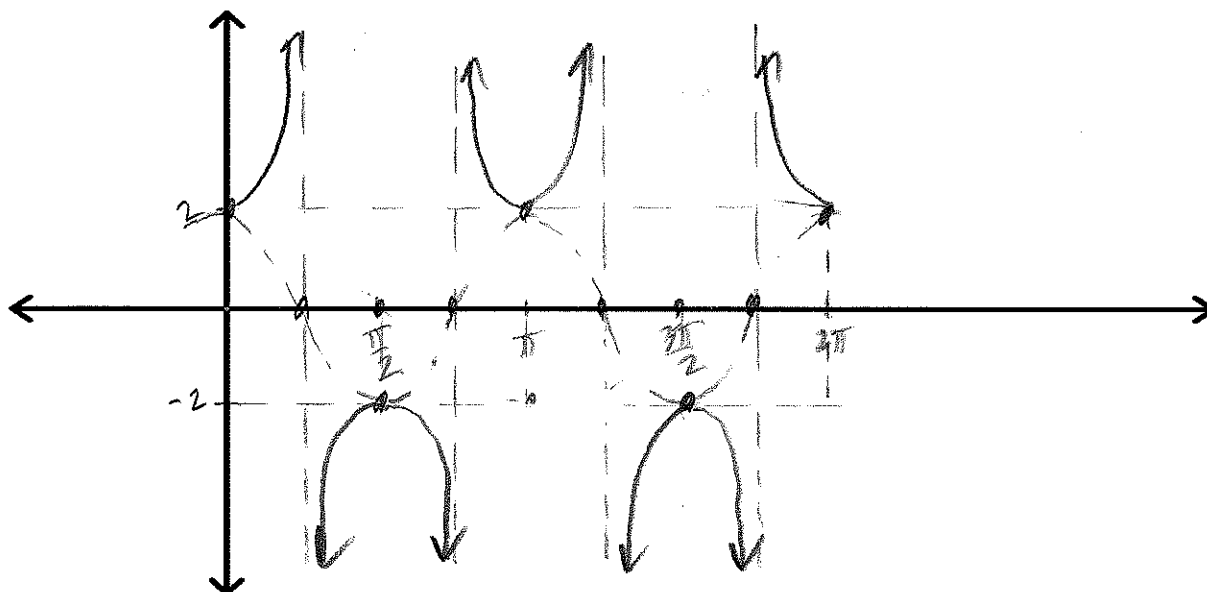
$$y = 2\cos\left(x + \frac{\pi}{6}\right)$$

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



9. $y = 2\sec 2x$

$y = 2\cos 2x$ $P = \frac{2\pi}{2} = \pi$ CP every $\frac{\pi}{4}$



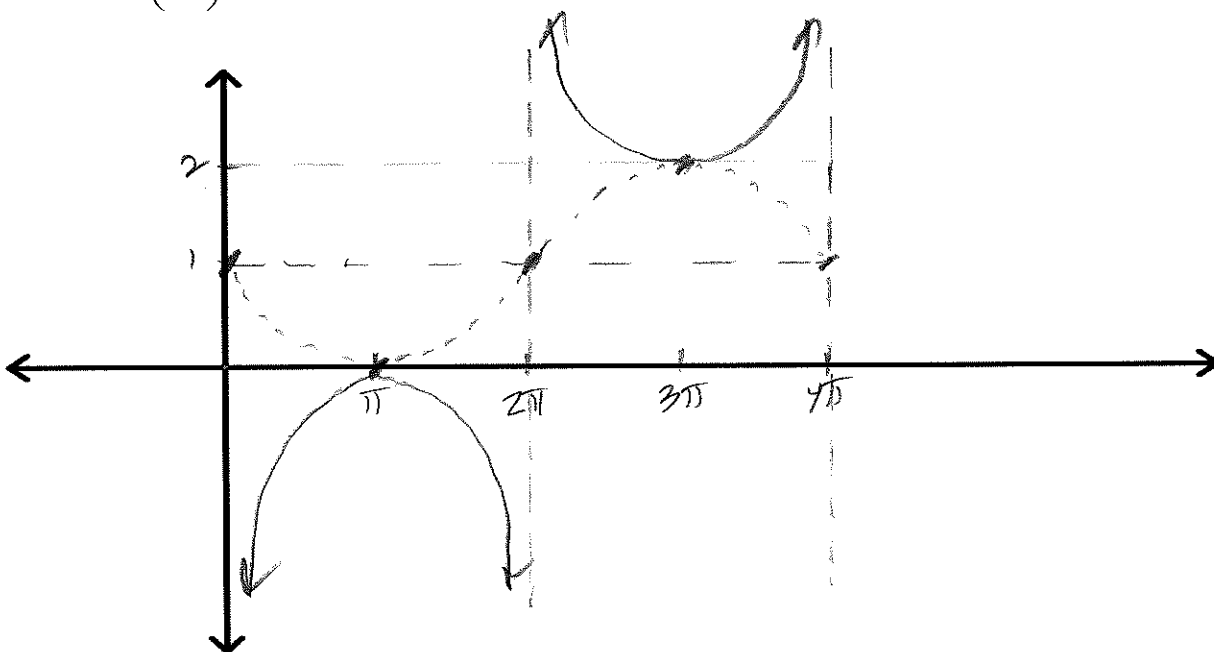
Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

$$-\sin \frac{1}{2}x + 1$$

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

CP every π

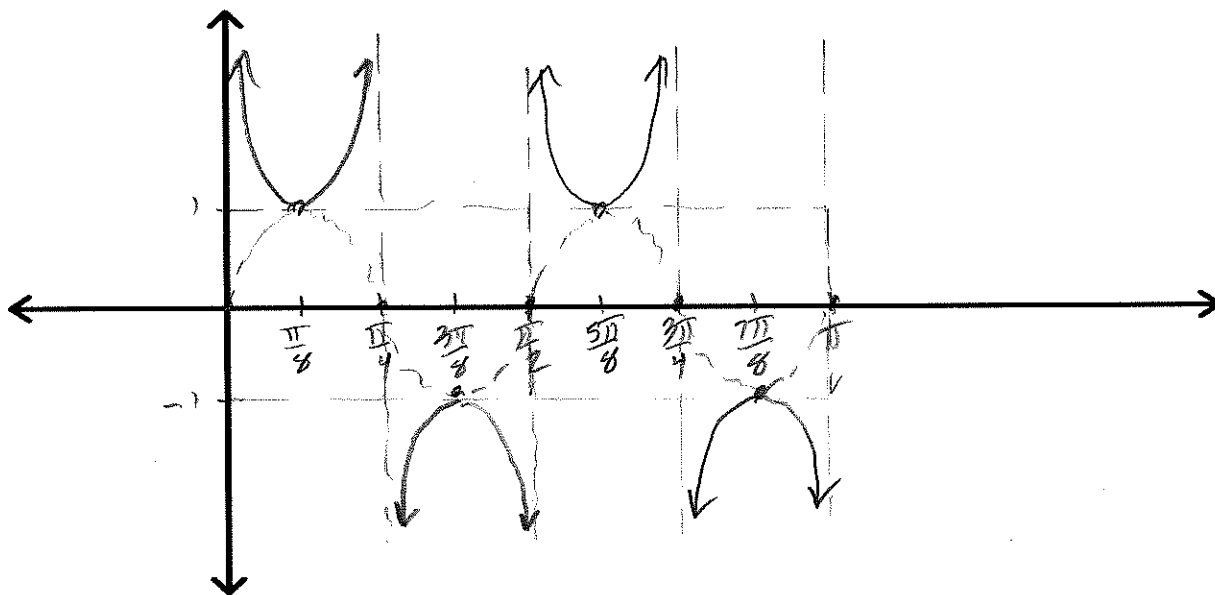
10. $y = -\csc\left(\frac{1}{2}x\right) + 1$



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

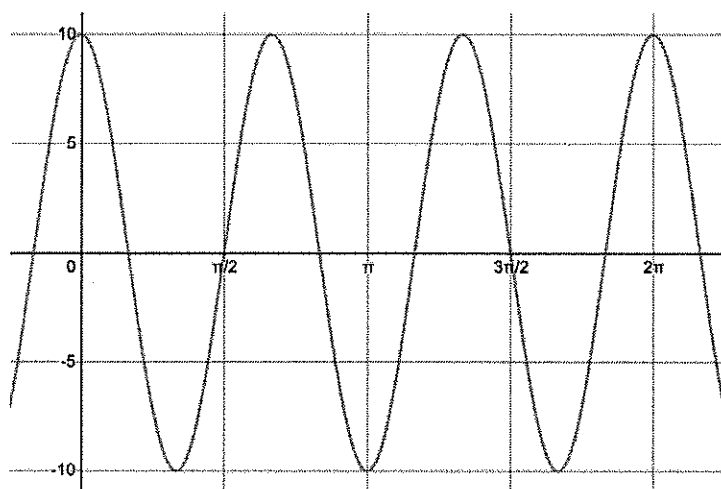
$$y = \sin 4(x - \pi)$$

$$P = \frac{\pi}{2} \quad \text{CP every } \frac{\pi}{8}$$



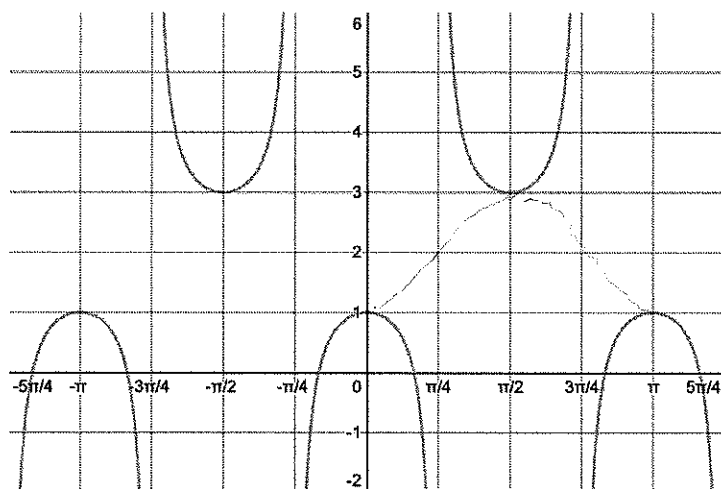
Sections 4.5 & 4.6 – I.C.E – More Graphing Practice

c)



$$y = 10 \cos 3x$$

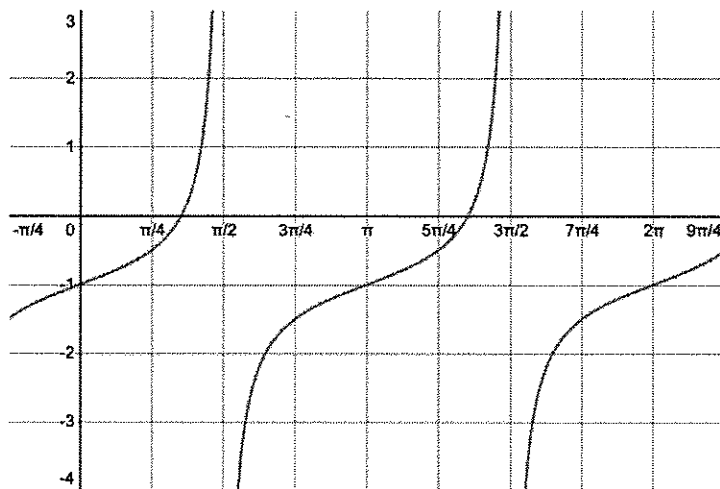
d)



$$-\cos 2x + 2$$

$$y = -\sec 2x + 2$$

e)



$$y = \frac{1}{2} \tan x - 1$$

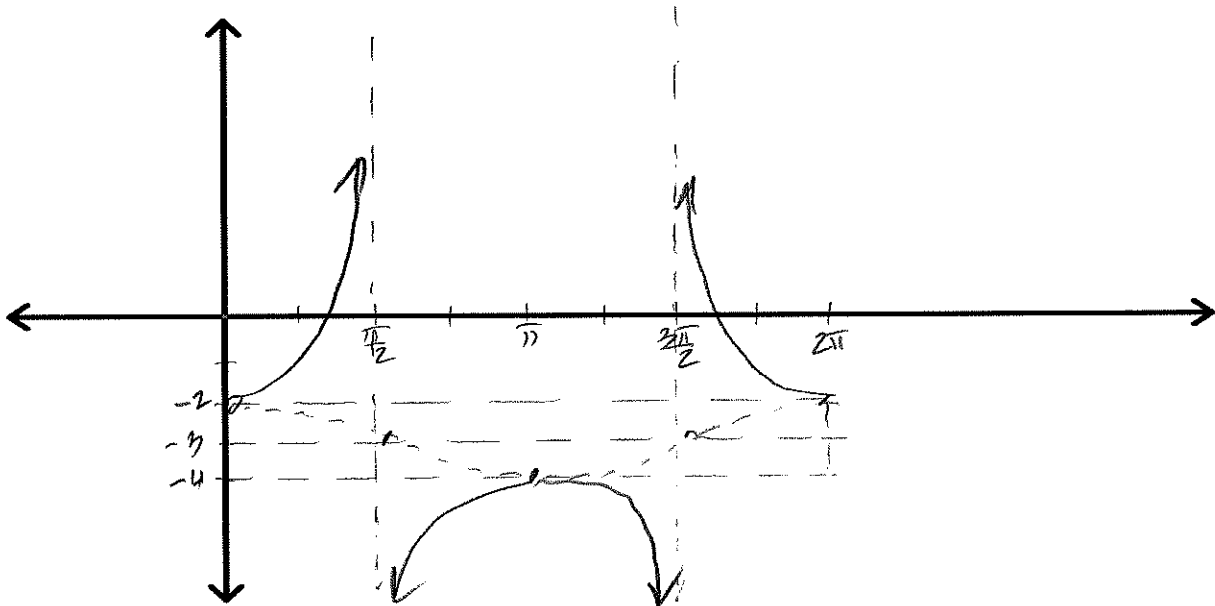
GO OVER YOUR LAST QUIZ TO STUDY, AND REDO HOMEWORK PROBLEMS!!

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

12. $y = \sec x - 3$

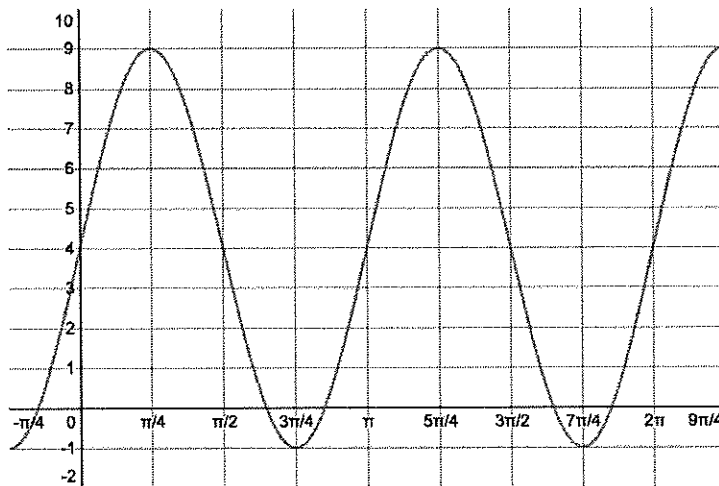
$y = \cos x - 3$

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



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

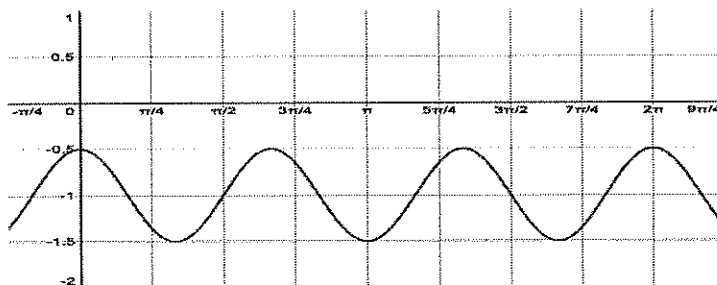
a)



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

$y = 5 \sin 2x + 4$

b)



$f = 3$

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