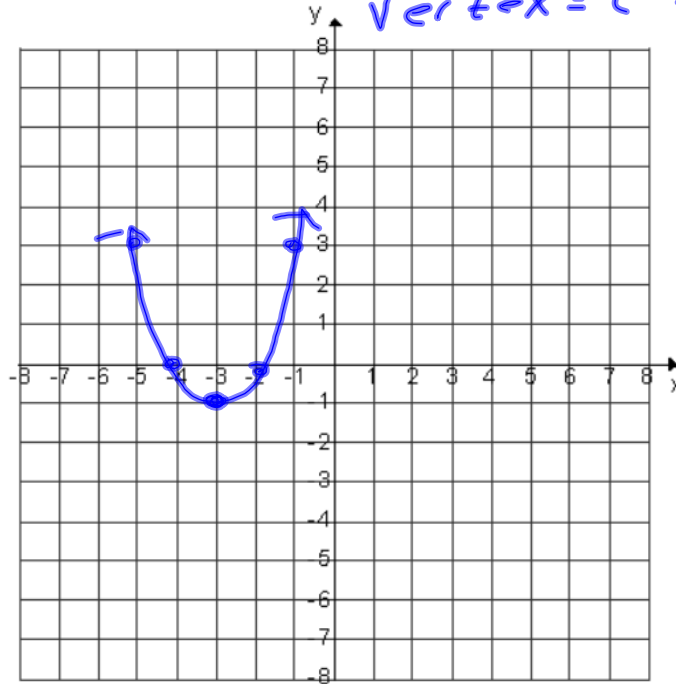
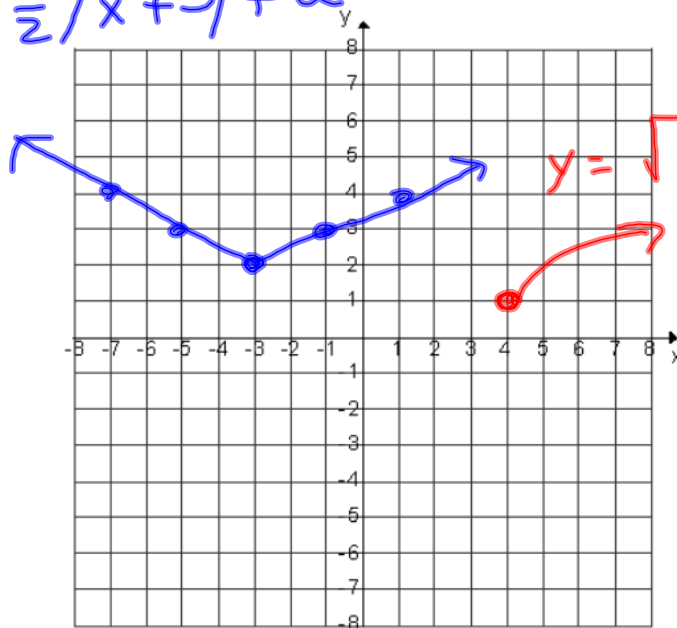


1-31-14  
3<sup>rd</sup> Trig

Graph  $y = (x + 3)^2 - 1$   
vertex =  $(-3, -1)$



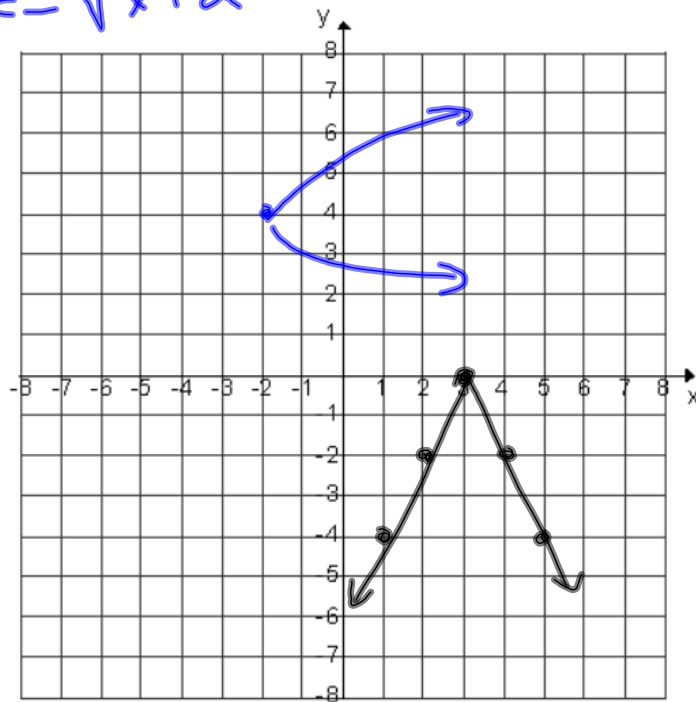
$$y = \frac{1}{2}|x + 3| + 2$$



$$y = \sqrt{x - 4} + 1$$

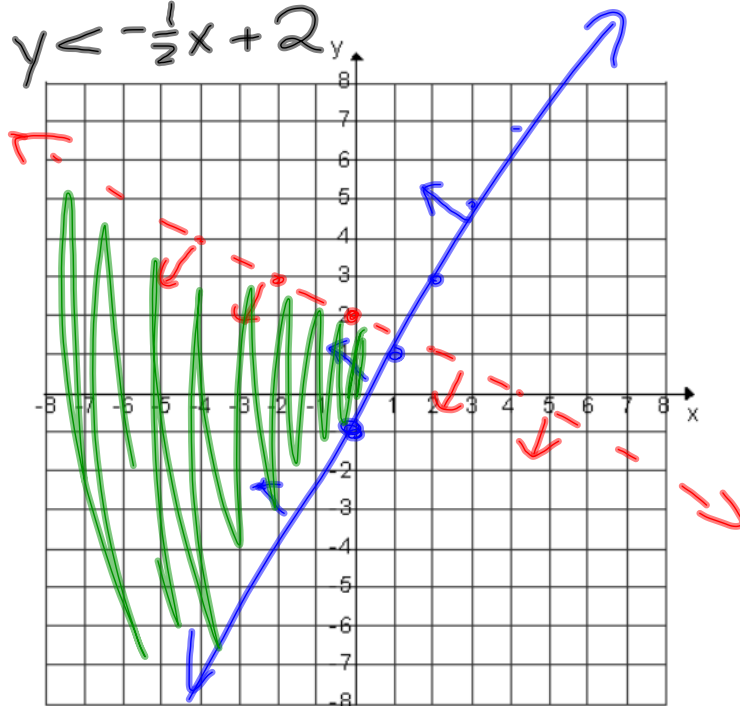


$$y = \pm \sqrt{x+2} + 4$$



$$y = -2/|x-3|$$

$$\begin{cases} y \geq 2x - 1 \\ y < -\frac{1}{2}x + 2 \end{cases}$$



## Asymptotes

Horizontal: Bobo Bobn Eats DC

Vertical: Draw line where  
x can't be in  
denominator

$$\textcircled{1} \quad y = \frac{\boxed{5}x^2 - 1}{\boxed{1}x^2 - 4}$$

Horizontal: EATS DC  
 $y = \frac{5}{1} = 5$

Vertical:  $x = \pm 2$

$$\textcircled{2} \quad y = \frac{x^2 + 6x + 1}{x + 2}$$

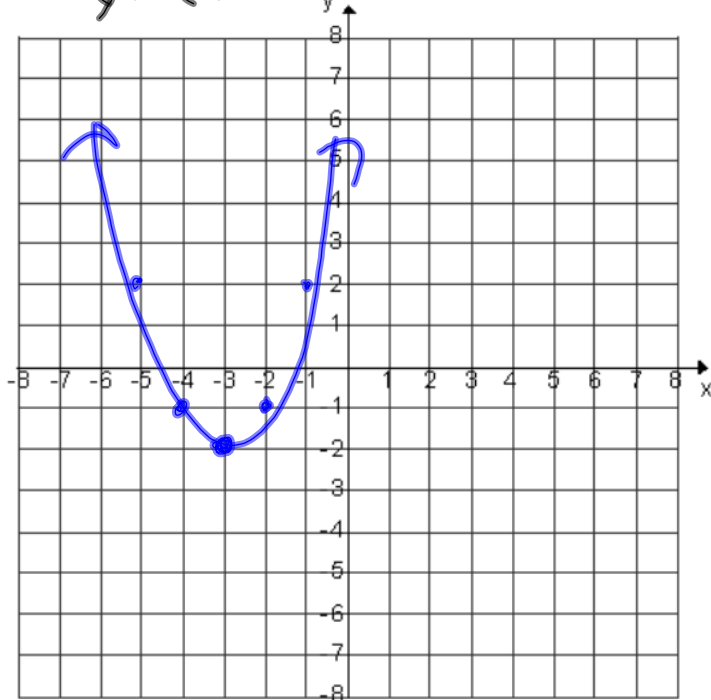
Slant:

$$y = x + 4$$

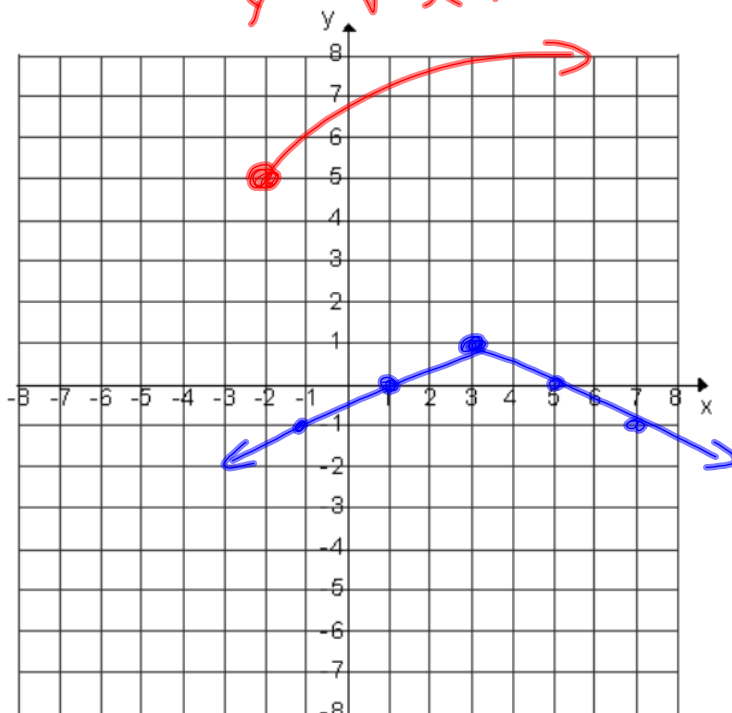
$$\begin{array}{r} x + 4 \\ \hline x^2 + 6x + 1 \\ - x^2 + 2x \\ \hline 4x + 1 \\ 4x + 8 \\ \hline -7 \end{array}$$

1-31-14  
4<sup>th</sup> Trig

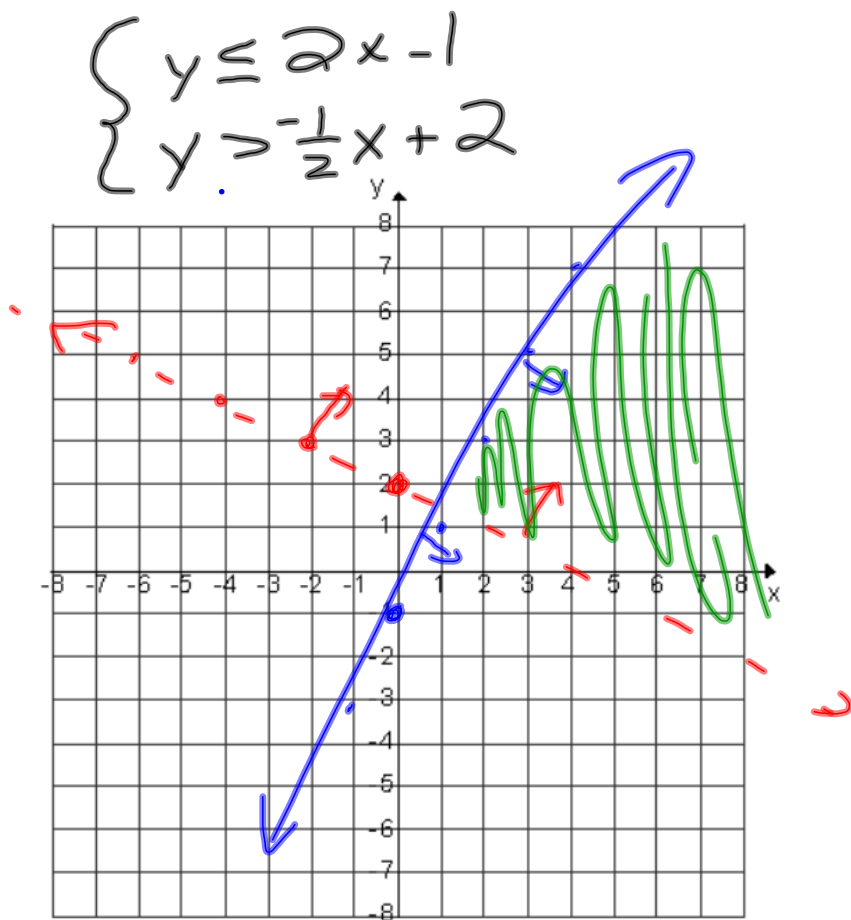
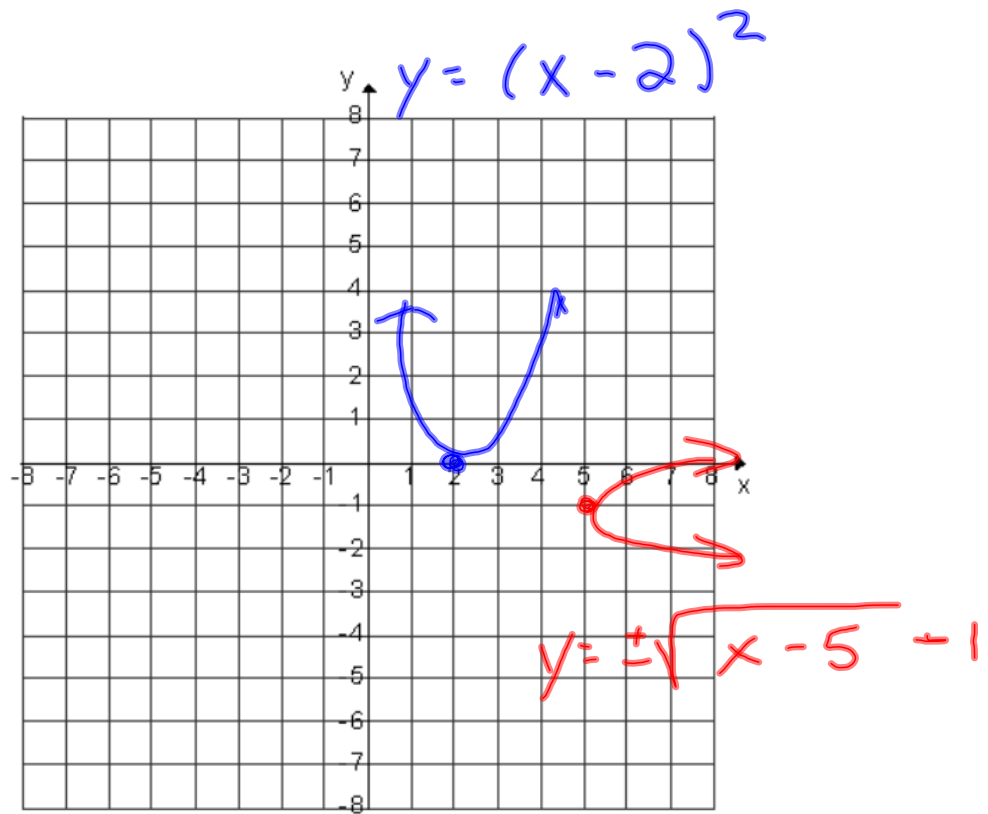
$$y = (x+3)^2 - 2$$



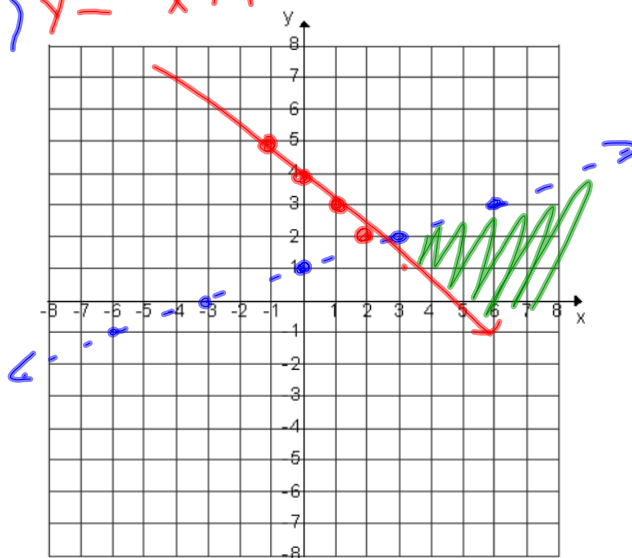
$$y = \sqrt{x+2} + 5$$



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



$$\begin{cases} y < \frac{1}{3}x + 1 \\ y \geq -x + 4 \end{cases}$$



$$y = \frac{1x^2 - 6x + 1}{1x^2 - 4}$$

Horiz: Ento DC  $y = \frac{1}{1} = 1$

Vertical:  $x^2 \neq 4$   $x = \pm 2$   
 $x \neq \pm 2$

$$y = \frac{x^2 + 3x + 6}{x + 2}$$

Slant:  $y = x + 1$

$$\begin{array}{r} x + 1 \\ x + 2 \overline{) x^2 + 3x + 6} \\ \underline{-(x^2 + 2x)} \phantom{+ 6} \\ x + 6 \\ \underline{-(x + 2)} \\ 4 \end{array}$$

