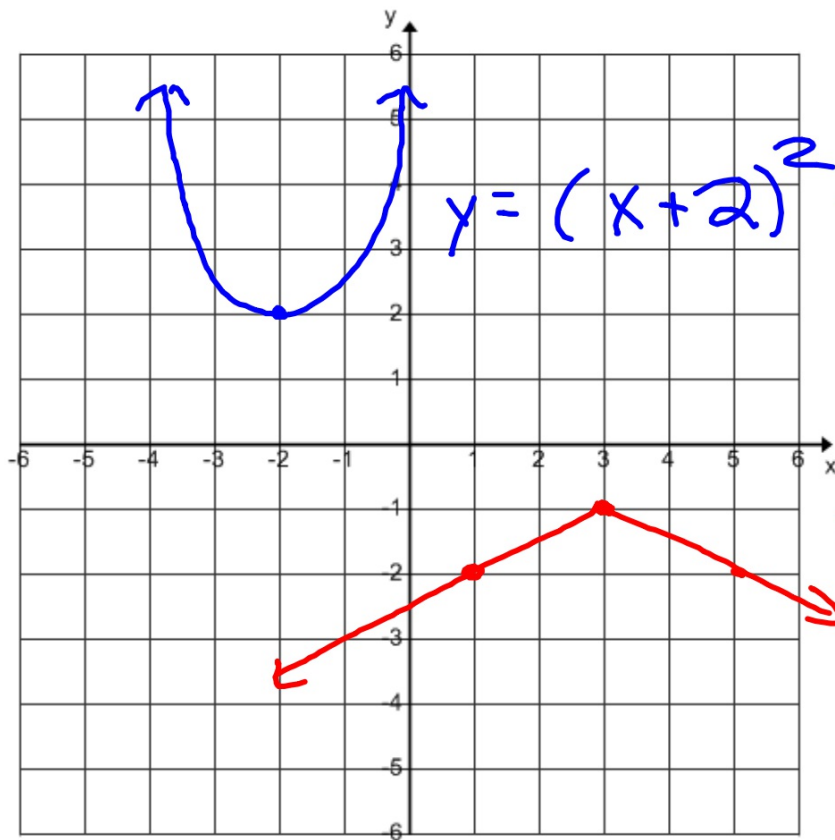
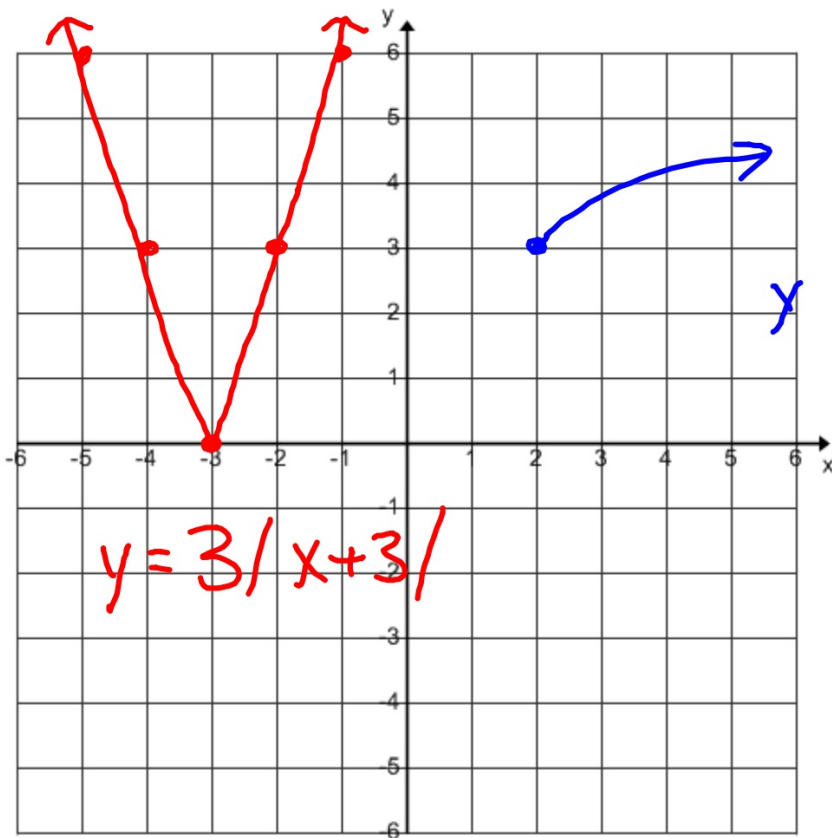


12-1-17



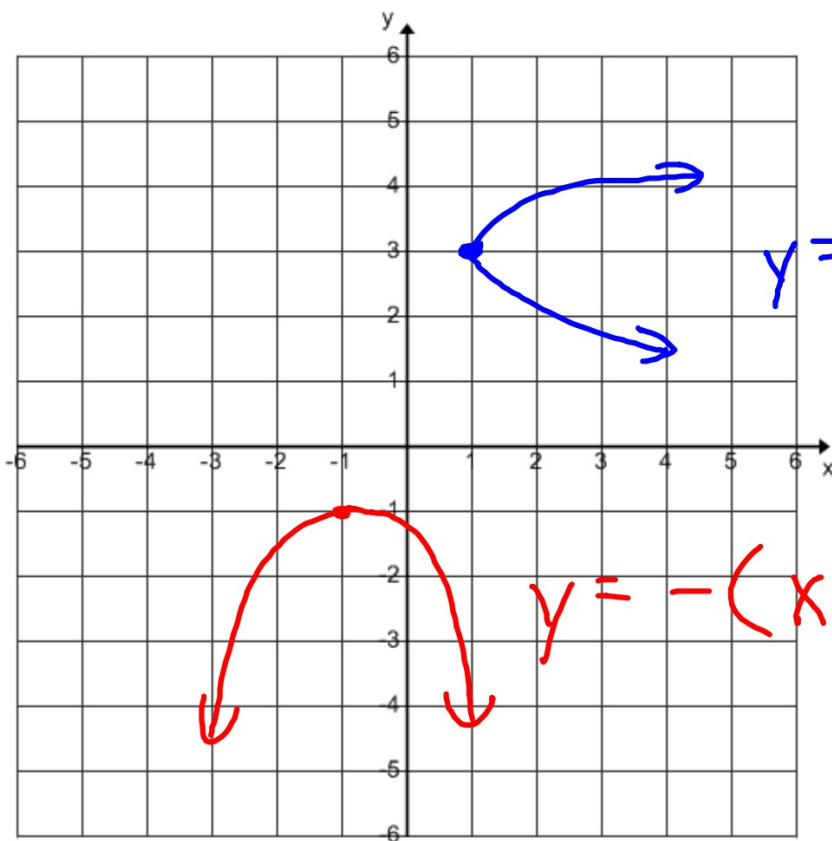
$$y = (x+2)^2 + 2$$

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



$$y = \sqrt{x-2} + 3$$

$$y = 3/x + 3$$



$$y = \pm\sqrt{x-1} + 3$$

$$y = -(x+1)^2 - 1$$

## Horizontal & Vertical asymptotes

$$\textcircled{1} \quad y = \frac{x^4 + 6x - 1}{x - 8}$$

H: Bobo Botu Euts DC

None

$$V: \quad x - 8 = 0$$

$$x = 8$$

$$\textcircled{2} \quad y = \frac{6x + 1}{2x - 3}$$

H: Bobo Botu Euts DC

$$y = \frac{6}{2}$$

$$y = 3$$

$$V: \quad \begin{array}{r} 2x - 3 = 0 \\ +3 \quad +3 \\ \hline \end{array}$$

$$2x = 3$$

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

Slant and Hole

$$\textcircled{3} \quad y = \frac{x^2 + 6x + 1}{x + 2}$$

$$\begin{array}{r} x+2 \overline{) x^2 + 6x + 1} \\ \underline{-(x^2 + 2x)} \phantom{+ 1} \\ 4x + 1 \\ \underline{-4x + 8} \\ \phantom{4x + 1} - 7 \end{array}$$

Slant at  
 $y = x + 4$

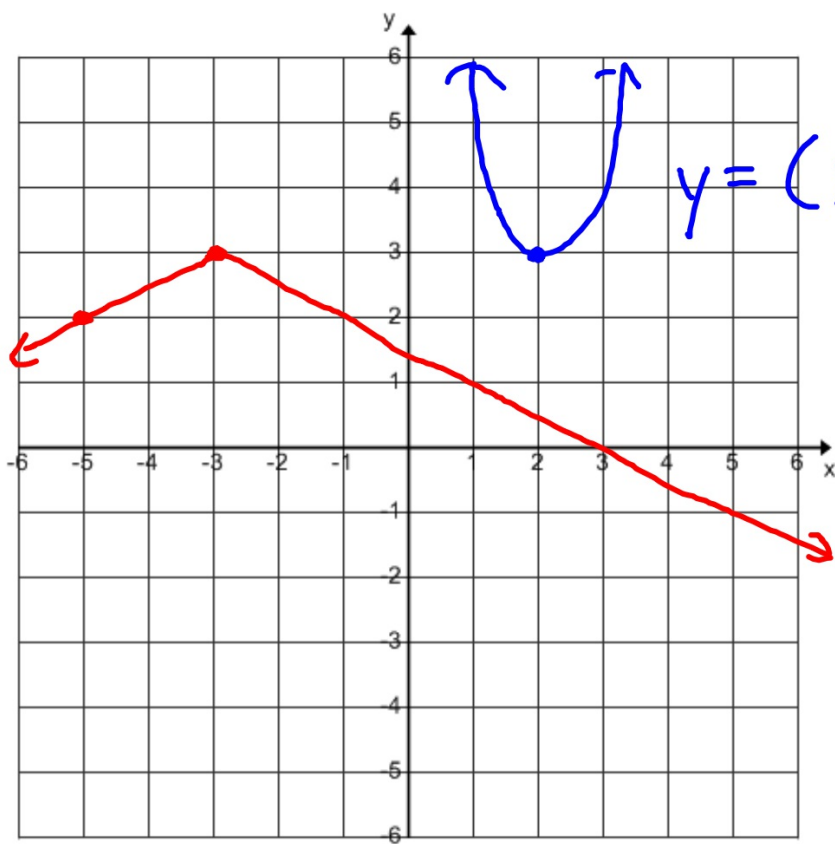
$$\textcircled{4} \quad y = \frac{x^2 + 5x + 6}{x + 3}$$

$$y = \frac{\cancel{(x+3)}(x+2)}{\cancel{x+3}}$$

$$y = x + 2 \quad [x \neq -3]$$

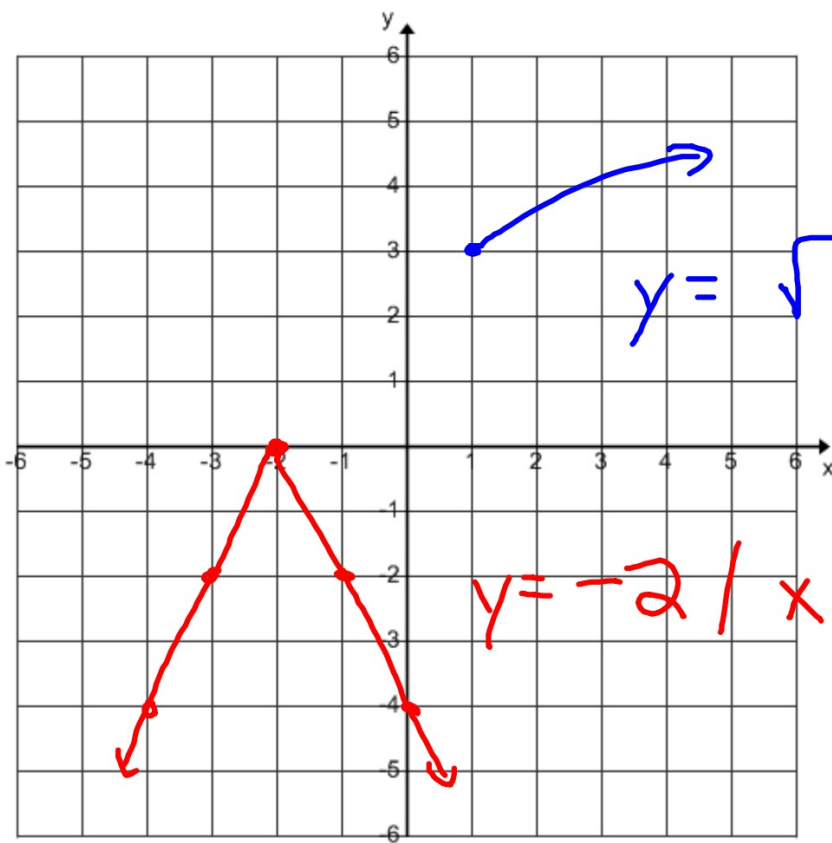
↑  
There is a  
HOLE at  
 $x = -3$

12-1-17 3<sup>rd</sup> Trig



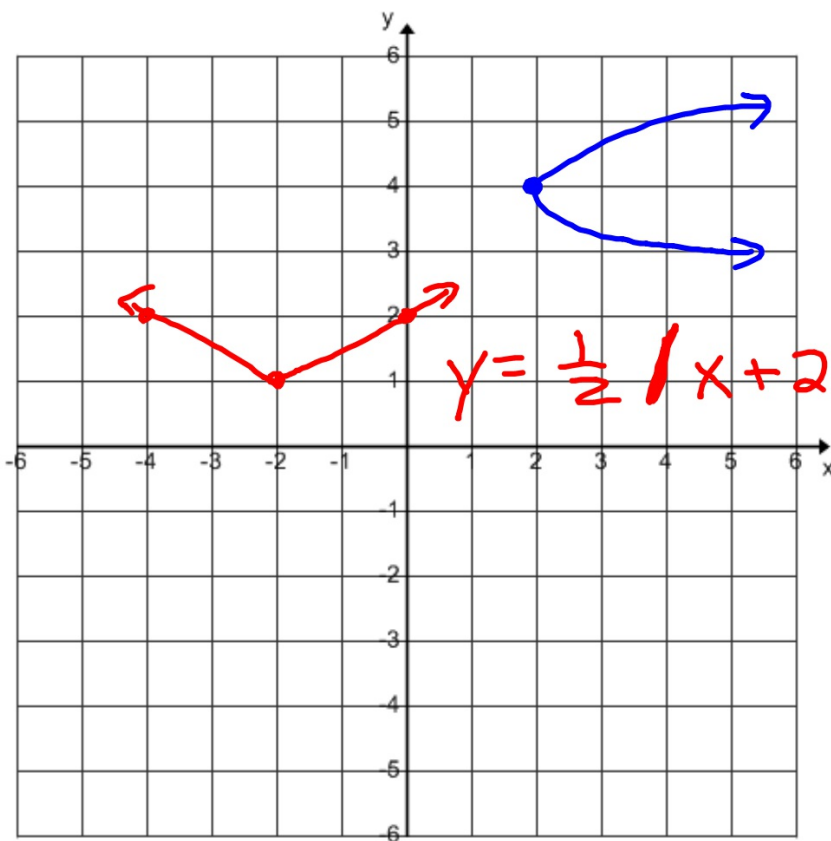
$$y = (x-2)^2 + 3$$

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



$$y = \sqrt{x-1} + 3$$

$$y = -2|x+2|$$



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

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



## Horizontal and Vertical Asymptotes

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

H: Bobo Botn Eats DC  
None

$$\begin{aligned} V: \quad x + 4 &= 0 \\ x &= -4 \end{aligned}$$

$$\textcircled{2} \quad y = \frac{8x + 1}{2x - 1}$$

H: Bobo Botn Eats DC  
 $y = \frac{8}{2}$   
 $y = 4$

$$\begin{aligned} V: \quad 2x - 1 &= 0 \\ x &= \frac{1}{2} \end{aligned}$$

## Slant and Hole

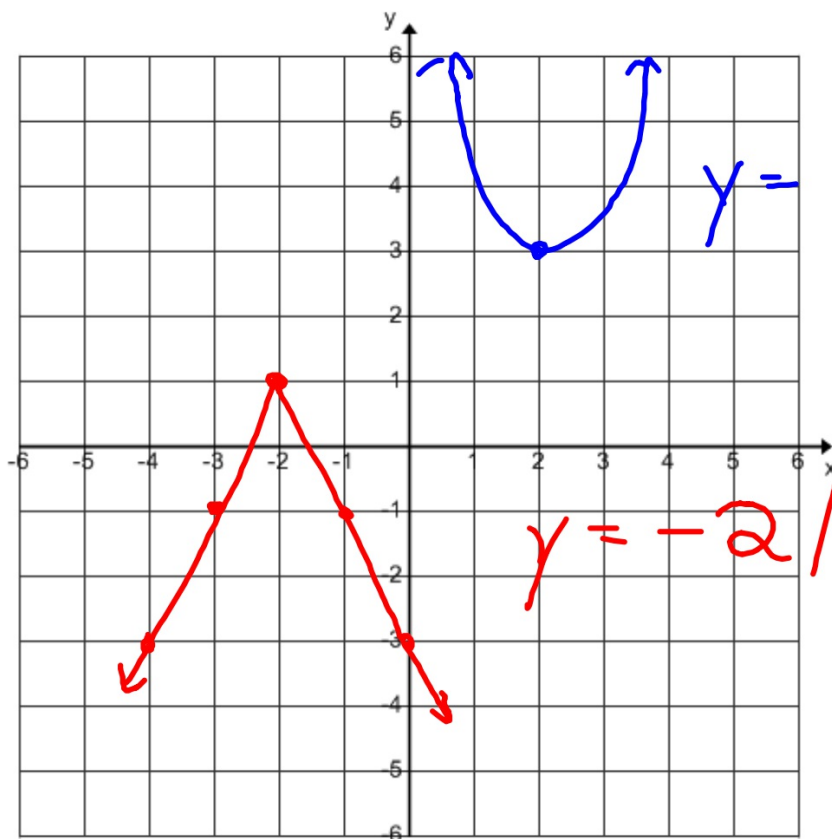
$$\textcircled{3} \quad y = \frac{x^2 + 3x + 10}{x + 7}$$

$$\begin{array}{r} x - 4 \\ x + 7 \overline{) x^2 + 3x + 10} \\ \underline{-(x^2 + 7x)} \phantom{+ 10} \\ -4x + 10 \\ \underline{-(-4x - 28)} \\ \phantom{-4x} + 38 \end{array}$$

Slant at

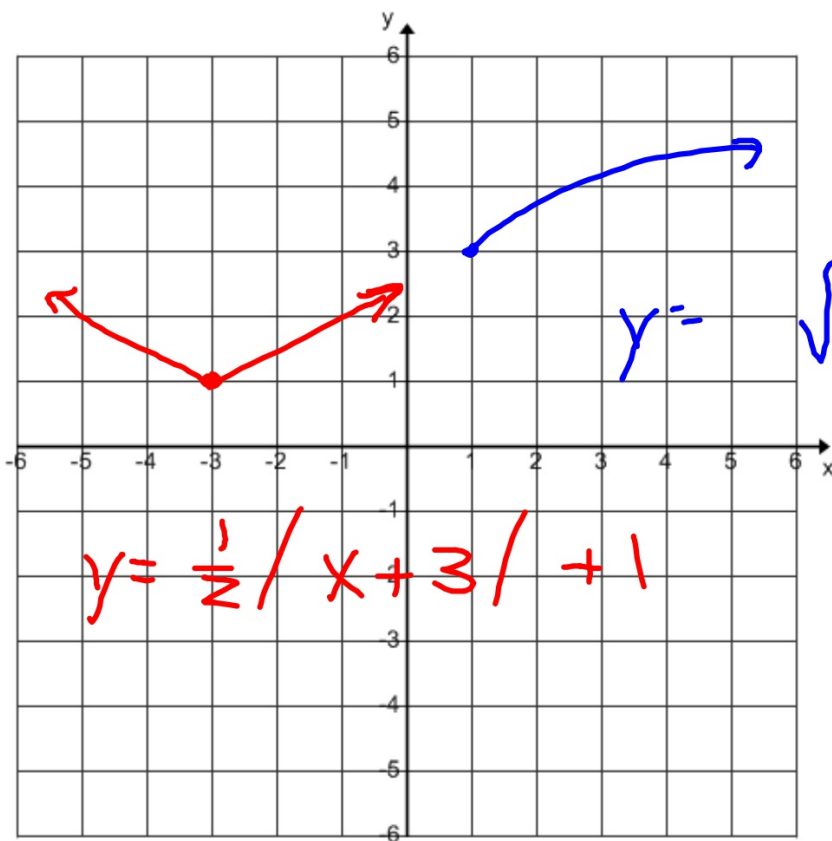
$$y = x - 4$$

12-1-17 4<sup>ta</sup> Trig



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

$$y = -2|x+2| + 1$$



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

$$y = \sqrt{x-1} + 3$$

Hor: zontal and Vertical Asymptotes

$$\textcircled{1} \quad y = \frac{x^6 + 5x - 1}{x + 3}$$

H: Bobo Botu Eats DC  
None

$$\begin{aligned} \text{V: } x + 3 &= 0 \\ x &= -3 \end{aligned}$$

$$\textcircled{2} \quad y = \frac{4x + 8}{2x - 1}$$

H: Bobo Botu Eats DC

$$\begin{aligned} y &= \frac{4}{2} \\ y &= 2 \end{aligned}$$

$$\begin{aligned} \text{V: } 2x - 1 &= 0 \\ x &= \frac{1}{2} \end{aligned}$$

③ Where is slant for

$$y = \frac{x^2 + 5x + 1}{x + 2}$$

$$\begin{array}{r} x + 2 \overline{) x^2 + 5x + 1} \\ \underline{-(x^2 + 2x)} \phantom{+ 1} \\ 3x + 1 \\ \underline{-(3x + 6)} \\ -5 \end{array}$$

$$y = x + 3$$



