

Warmup:

Graph the function below:

$$f(x) = \frac{x-1}{x^2-4} = \frac{x-1}{(x+2)(x-2)}$$

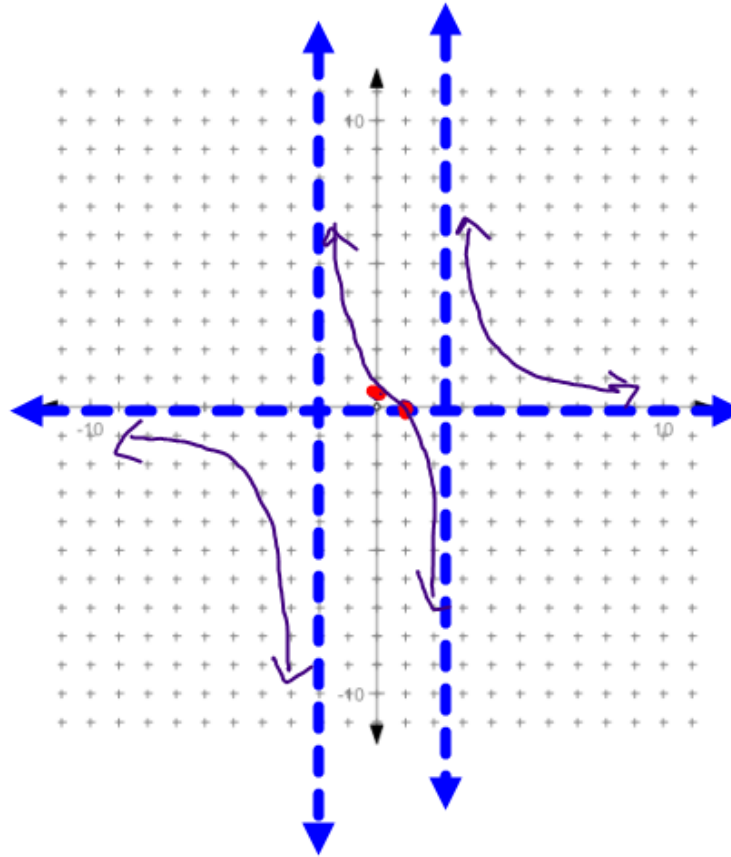
VA: $x = -2$ or -2

HA: $y = 0$

SA: N/A

Intercepts: x-int: 1

y-int: $\frac{1}{4}$



$$1) f(x) = \frac{x^2 - 16}{4x - 8} = \frac{(x+4)(x-4)}{4(x-2)}$$

$$\text{v.A: } x=2$$

$$\text{H.A: } n/A \quad \leftarrow \text{slope}$$

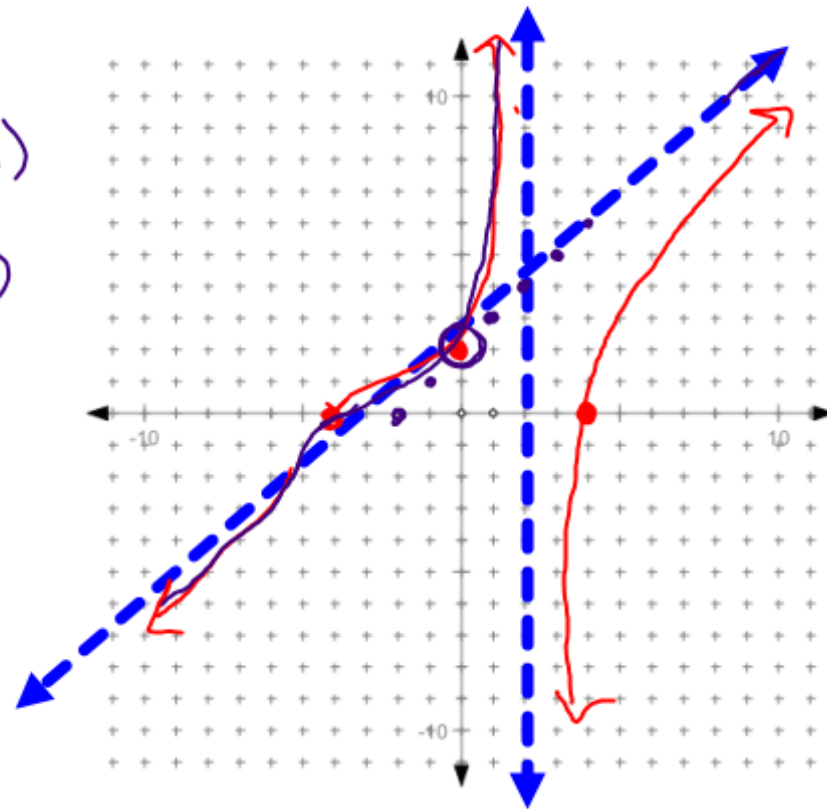
$$\text{S.A: } y = \underset{\substack{\uparrow \\ \text{slope}}}{1}x + \underset{\substack{\uparrow \\ \text{y-int}}}{2}$$

$$x\text{-int: } 4 \text{ ; } -4$$

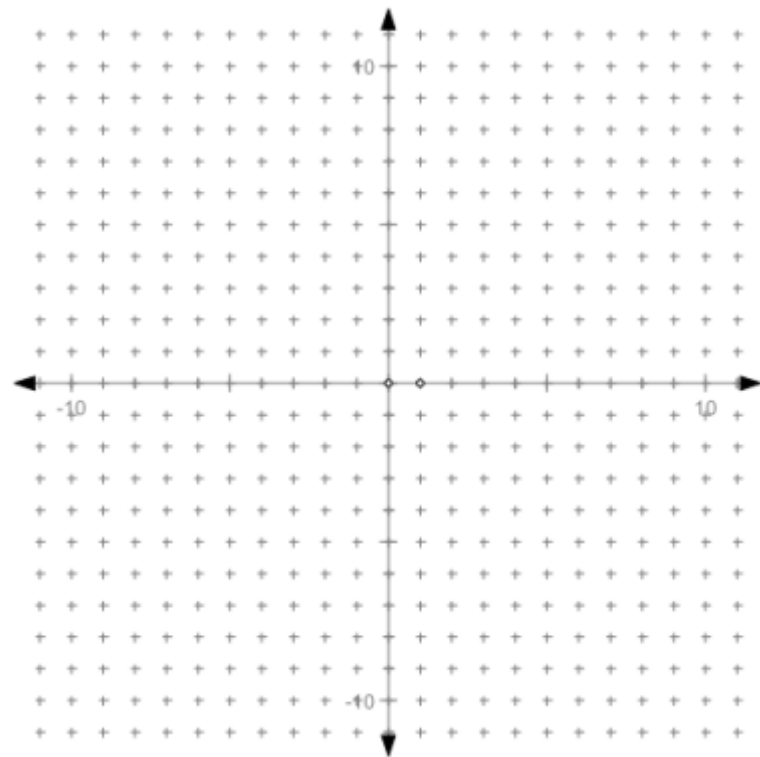
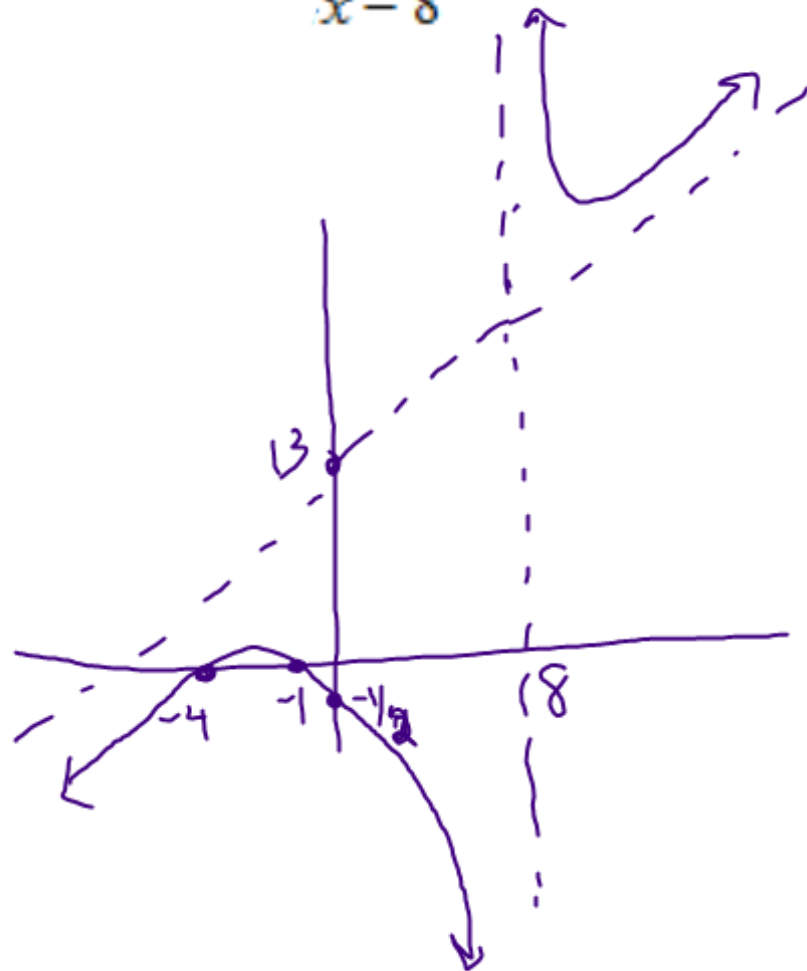
$$y\text{-int: } 2$$

$$\begin{array}{r} 2 \overline{) 1 \ 0 \ -16} \\ \underline{2 } \\ 1 \ 2 \\ \underline{2} \\ \end{array}$$

$$y = x + 2$$



$$f(x) = \frac{x^2 + 5x + 4}{x - 8}$$



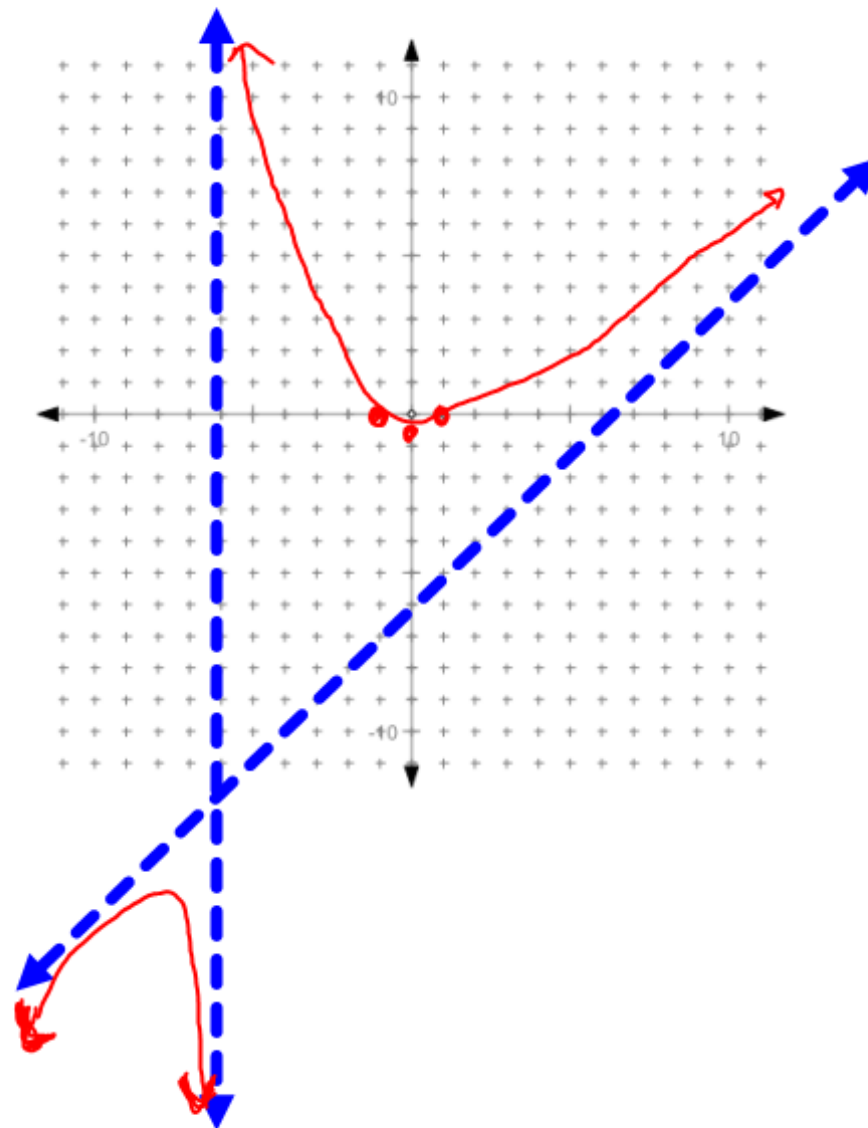
$$f(x) = \frac{x^2 - 1}{x + 6}$$

$$x\text{-int: } -1, 1$$

$$y\text{-int: } -\frac{1}{6}$$

$$VA : x = -6$$

$$SA : y = x - 6$$



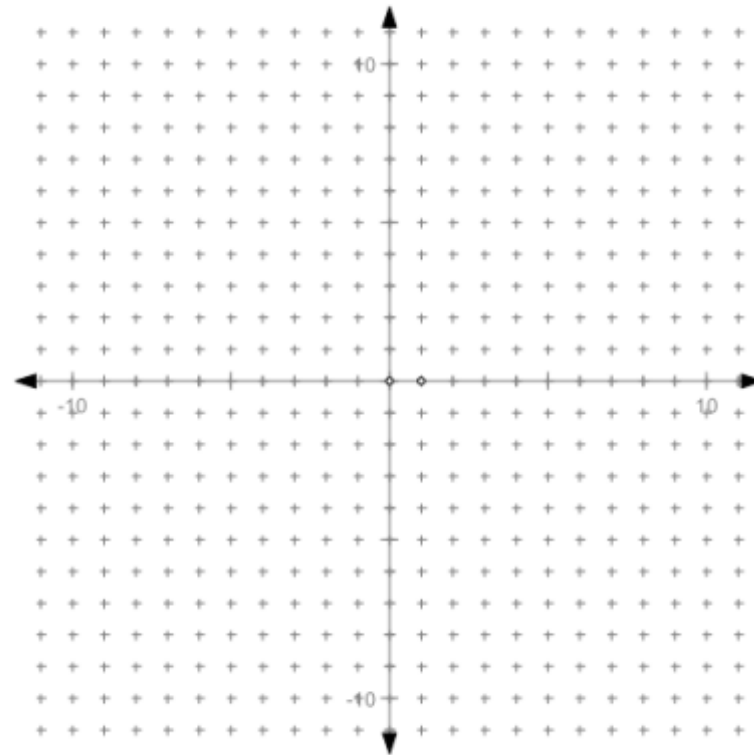
$$f(x) = \frac{2x+1}{x^2-9}$$

VA:

HA:

SA:

Intercepts:



Homework:

Graphing Rational Functions Worksheet #2

