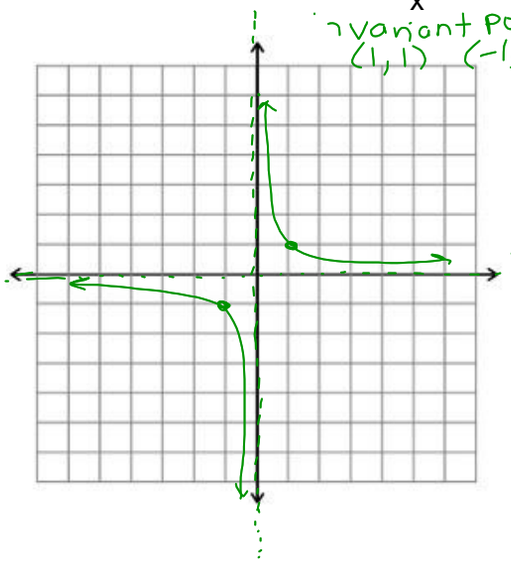
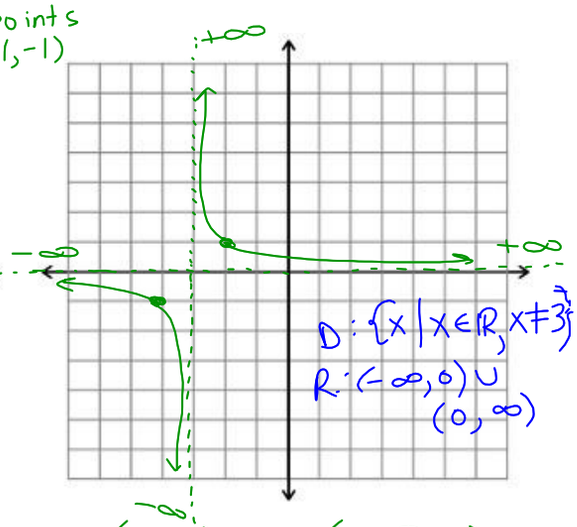
Reciprocal Functions

RECALL: The base graph of a reciprocal function. $y = \frac{1}{x}$

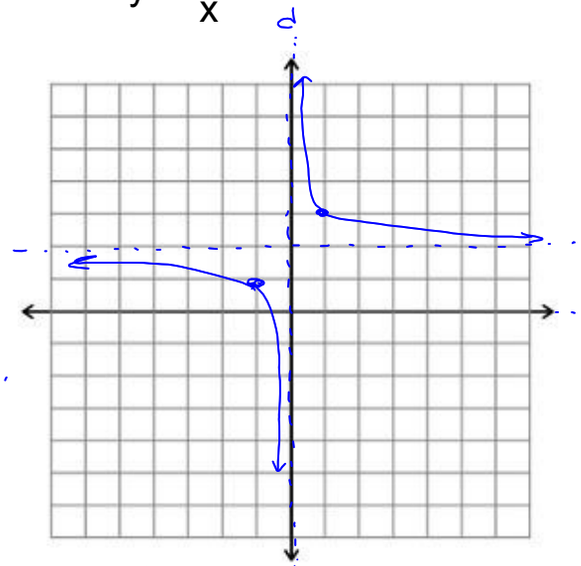


Ex 1) Sketch the graph of $y = \frac{1}{(x+3)}$ Write the domain and range.



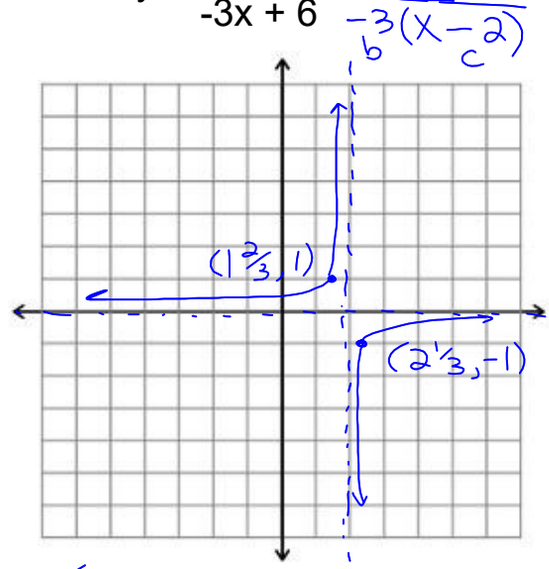
(x, y) → (x-3, y)
(-1,-1) (-4,-1)
(1,1) (-2,1)

Ex 2) Sketch the graph of $y = \frac{1}{x} + 2$



(x, y) → (x, y+2)
(-1,-1) (-1,1)
(1,1) (1,3)

Ex 3) Sketch the graph of $y = \frac{1}{-3x+6} = \frac{1}{-3(x-2)}$



(x, y) → $(-\frac{x}{3}+2, y)$
(-1,-1) (2⅓,-1)
(1,1) (1⅔,1)

Ex 4) Sketch the graph of the reciprocal, given the graphs below: