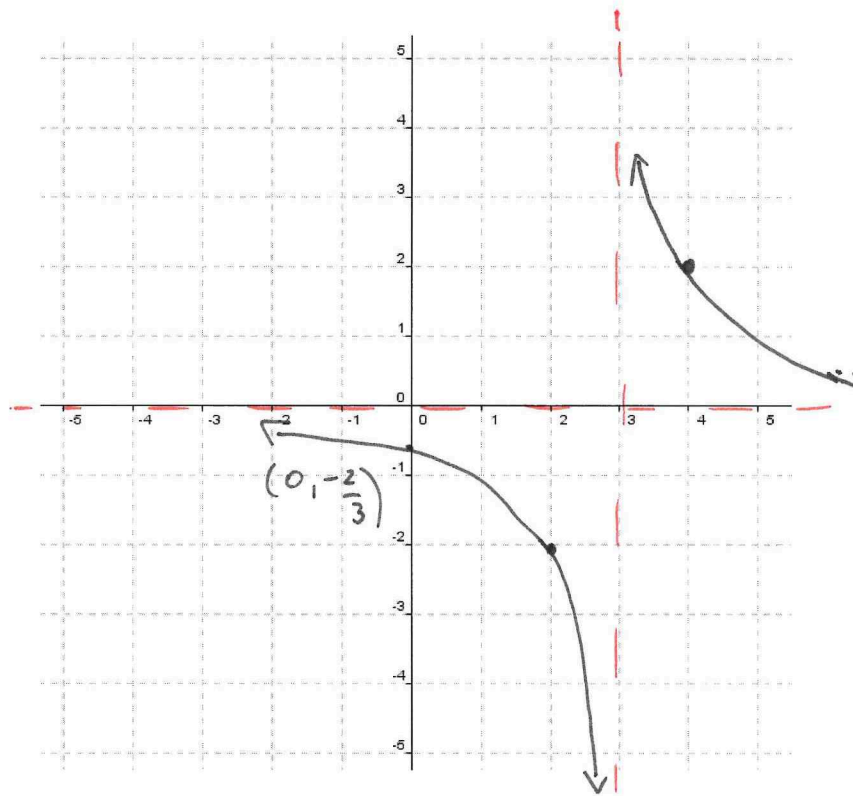
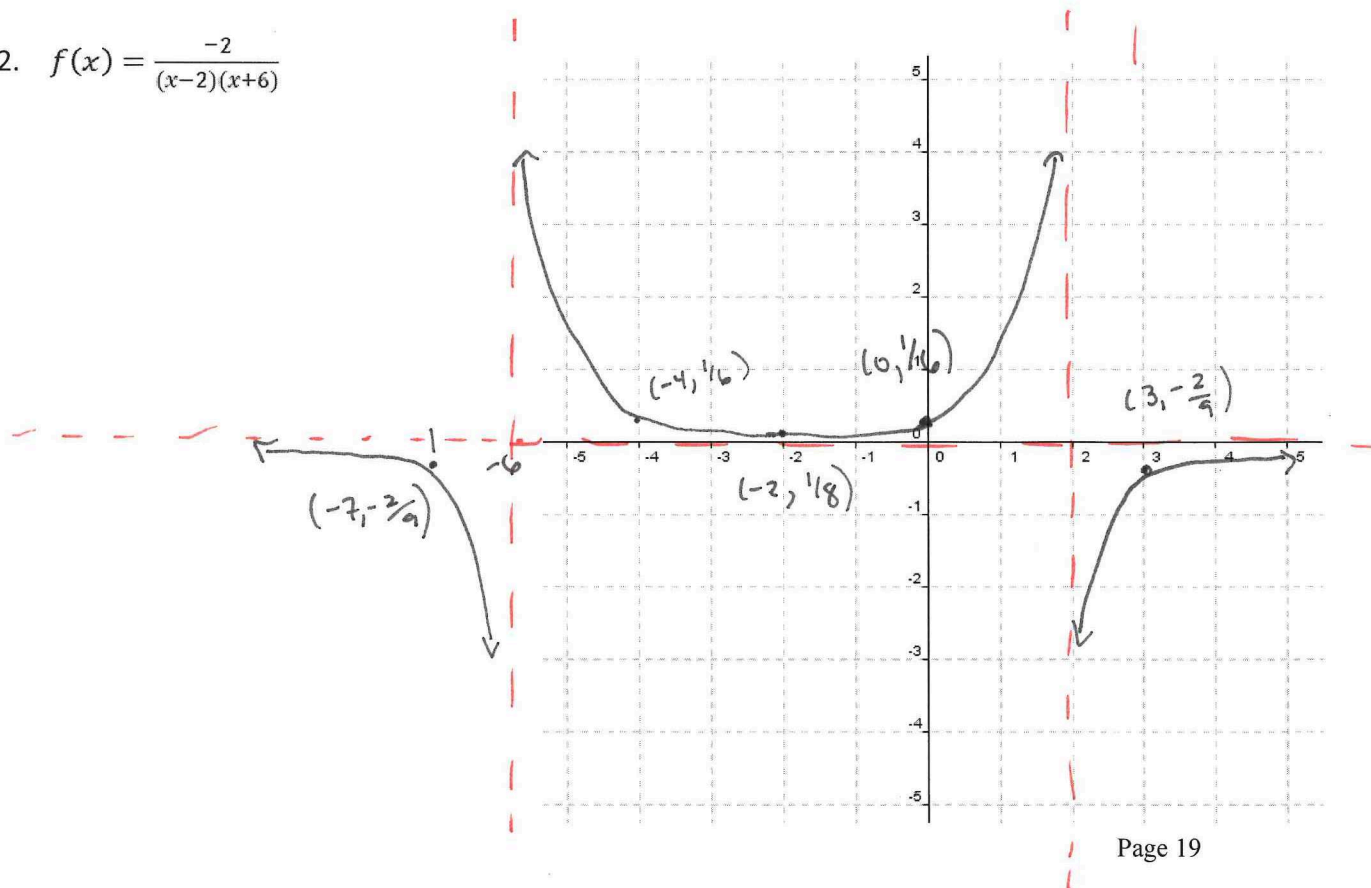


9.2 Homework Graphing rational functions – R14

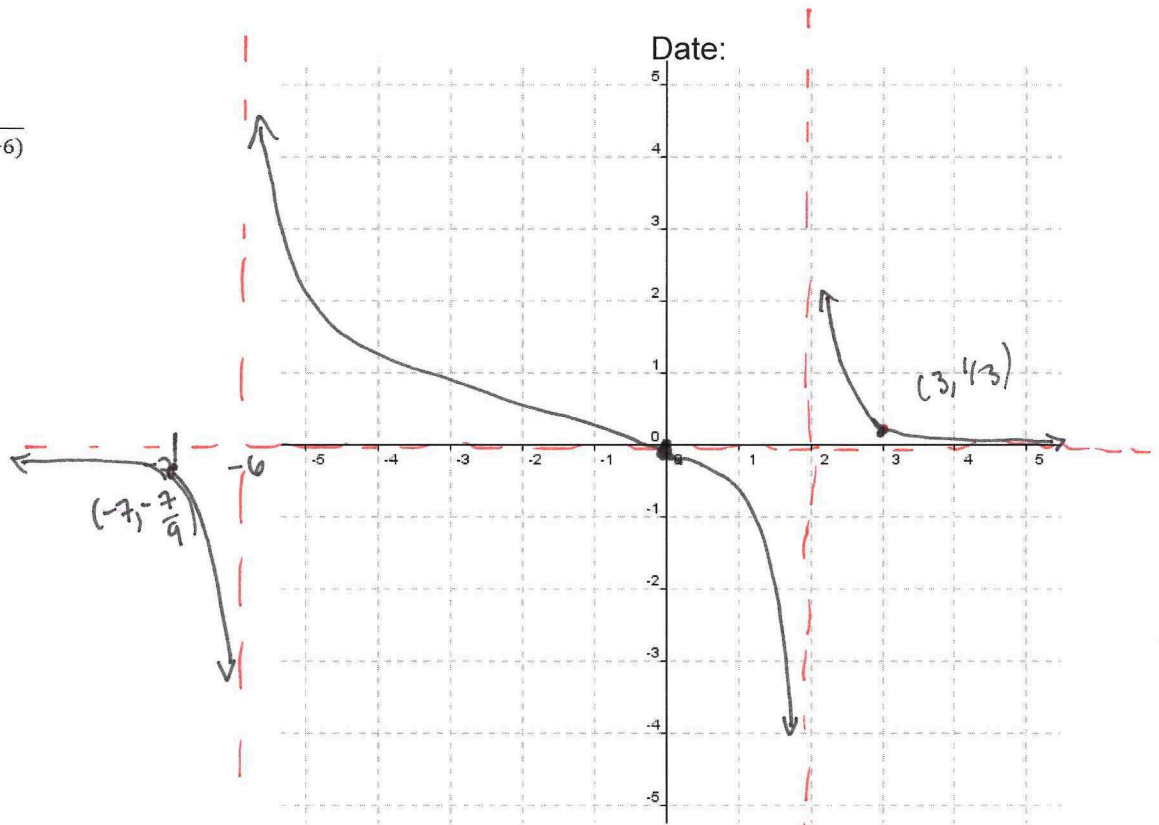
1.  $y = \frac{2}{x-3}$



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

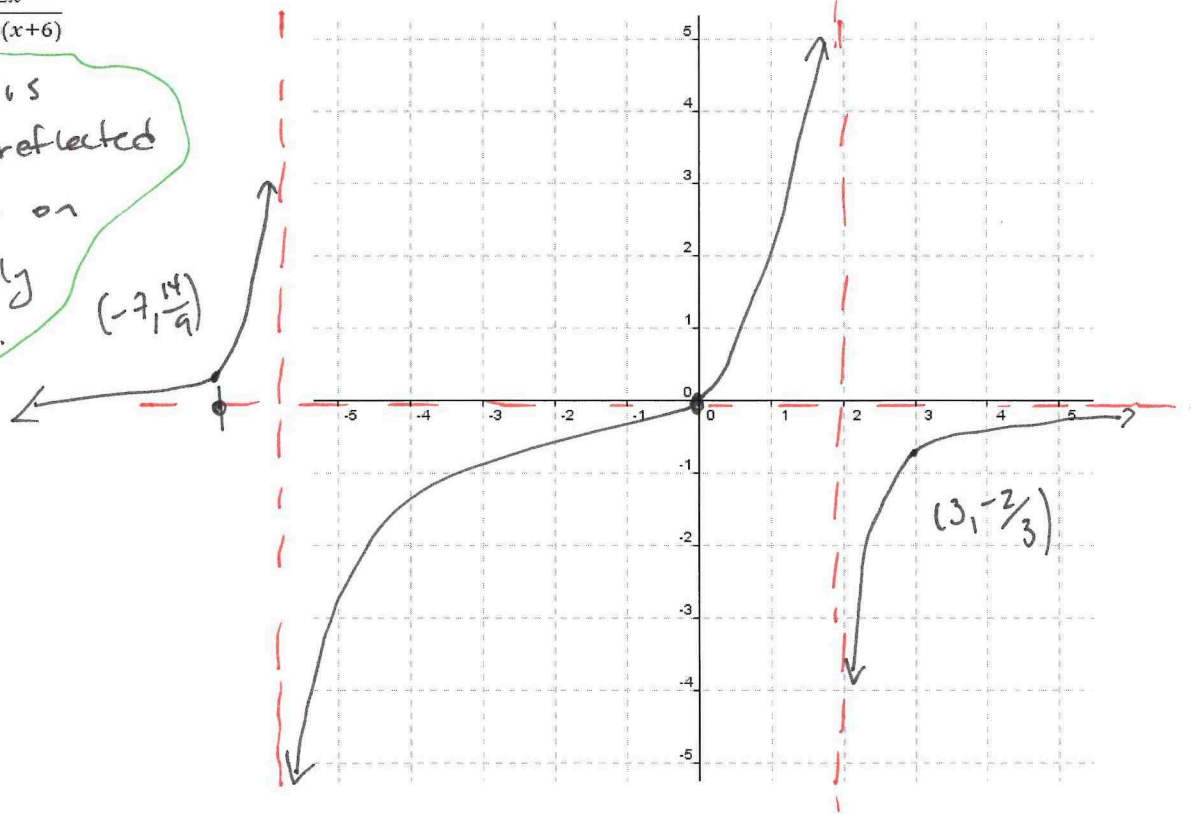


3.  $f(x) = \frac{x}{(x-2)(x+6)}$



4.  $f(x) = \frac{-2x}{(x-2)(x+6)}$

Note: This graph is the above graph reflected over the x-axis and stretched vertically by a factor of 2.



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

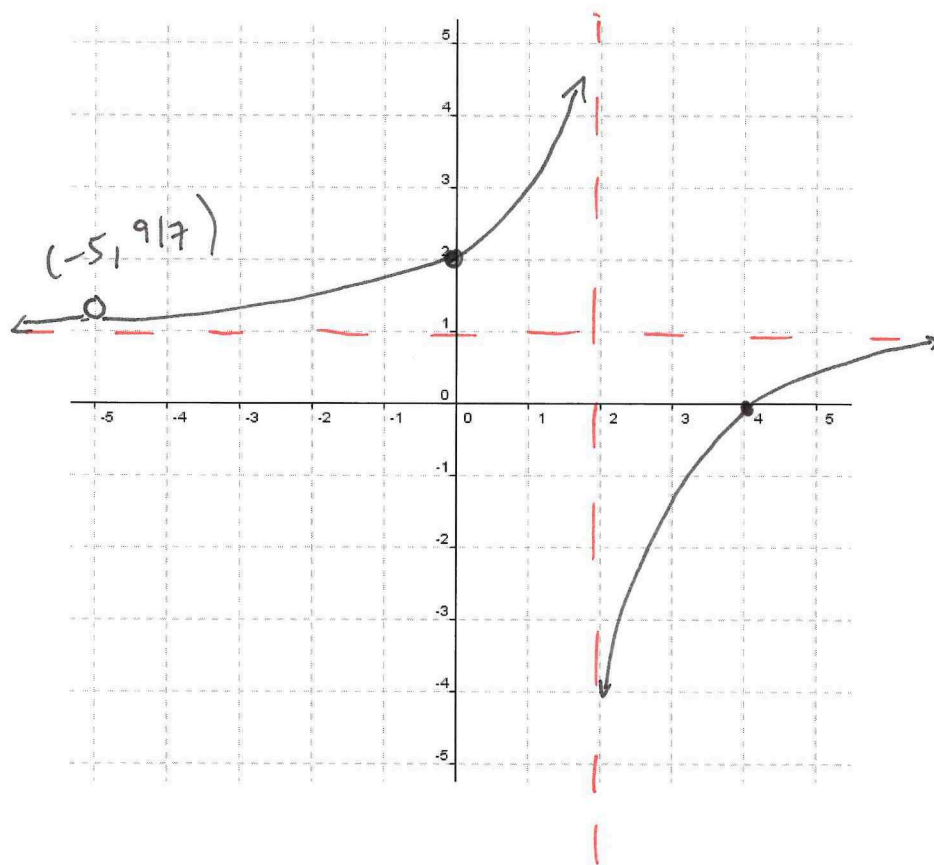
$$f(x) = \frac{x-4}{x-2}, \quad x \neq -5$$

point of discontinuity

$$f(-5) = \frac{-9}{-7}$$

$$= 9/7$$

$$(-5, 9/7)$$



$$6. f(x) = \frac{x^2 - 5x + 6}{x - 3}$$

$$f(x) = \frac{(x-3)(x-2)}{(x-3)}$$

$$f(x) = x - 2, \quad x \neq 3$$

when  $x = 3$

$$f(3) = 1$$

point of discontinuity  
@ (3, 1)

