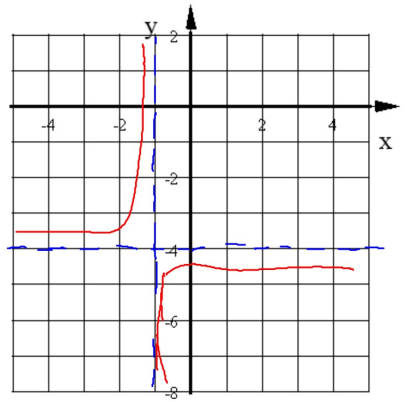
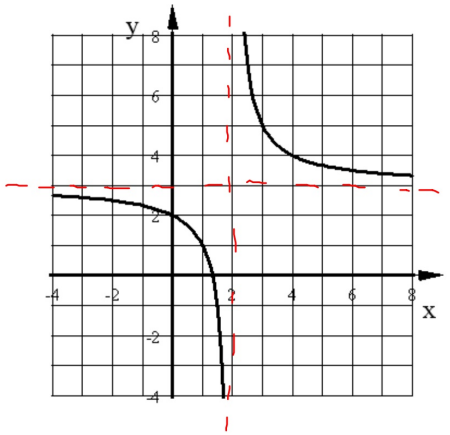
Algebra 2 Bellwork Friday, December 20, 2013

1. Graph this reciprocal function: $y = \frac{-0.15}{x+1} - 4$



2. Write the equation of this translation of the function $y = \frac{2}{x}$



$\frac{2}{x-2} + 3$

3. State the points of discontinuity and classify them as holes or vertical asymptotes.

$y = \frac{x^2 + x - 42}{2x^3 - 4x^2 - 48x}$ $2x(x^2 - 2x - 24)$

$\frac{(x+7)(x-6)}{2x(x-6)(x+4)}$

VA $x = 0$

Hole $x = 6$

VA $x = -4$

4. Write the equation of the horizontal asymptote of each rational function, if any.

a. $y = \frac{3x^2 + x - 4}{x + 2}$ NO HA

b. $y = \frac{8x + 7}{4x^2 - 1}$ $y = 0$

c. $y = \frac{3x^2 + 10x - 12}{6x^2 - 5x - 3}$ $y = \frac{1}{2}$