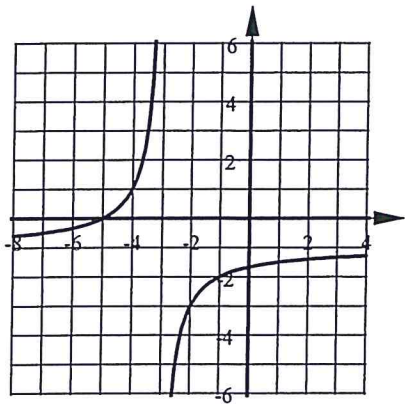
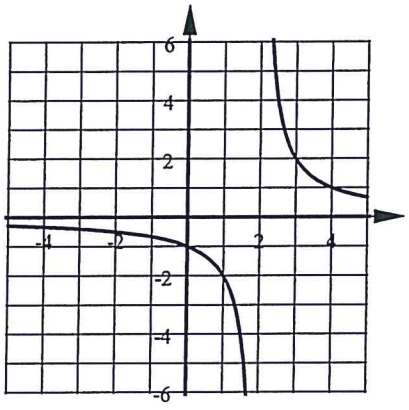
Algebra 2 Bellwork Thursday, February 4, 2016

1. Write the equation of each graph which is a transformation of $y = \frac{2}{x}$

a) EQ:



b) EQ:



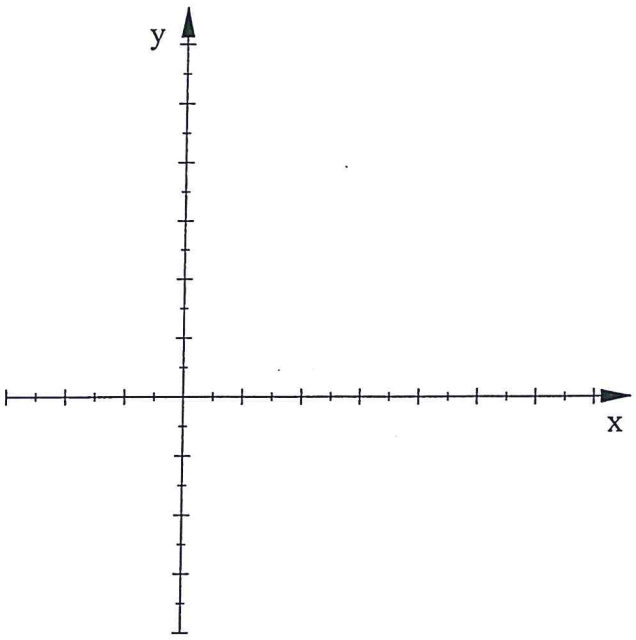
2. Graph this transformation of the parent reciprocal function. Show the asymptotes as dashed lines and state the equations of the asymptotes.

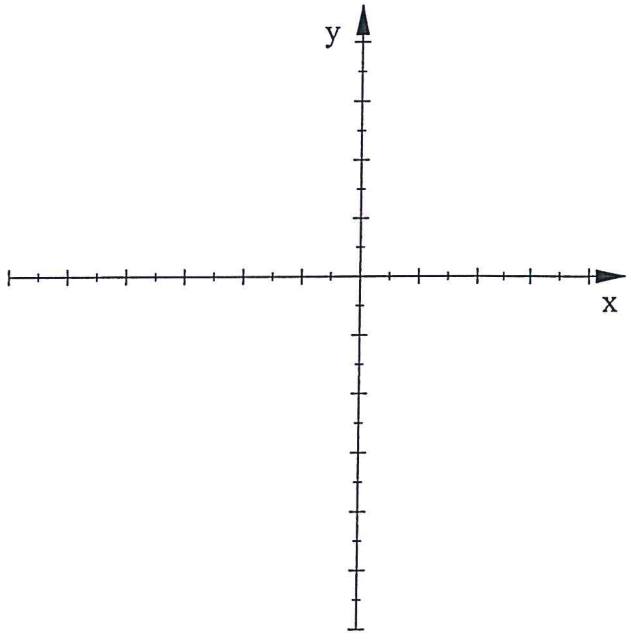
a) $y = \frac{0.2}{x-3} + 4$

HA: VA:

b) $y\frac{-15}{x+2} - 3$

HA: VA:





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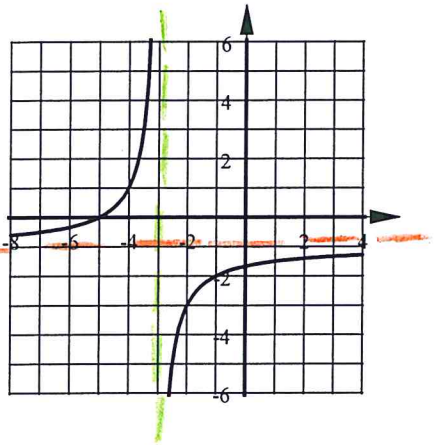
ANSWERS

1. Write the equation of each graph which is a transformation of $y = \frac{2}{x}$

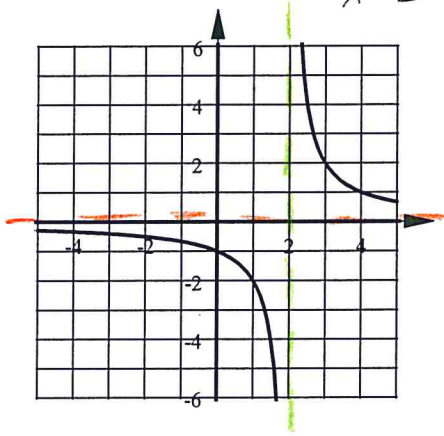
a) EQ: $y = \frac{-2}{x+3} - 1$



HA $y = -1$ 1 DOWN

VA $x = -3$ 3 LEFT

b) EQ: $y = \frac{2}{x-2}$



HA $y = 0$ NO VERTICAL TRANSLATI

VA $x = 2$ 2 RIGHT

2. Graph this transformation of the parent reciprocal function. Show the asymptotes as dashed lines and state the equations of the asymptotes.

a) $y = \frac{0.2}{x-3} + 4$ → QUADRANTS I & III close to asymptotes

HA: $x = 3$ 3 RIGHT VA: $y = 4$ 4 up

b) $y = \frac{-15}{x+2} - 3$ → QUADRANTS II & IV far from asymptote

HA: $x = -2$ 2 left VA: $y = -3$ 3 down