Algebra 2 Bellwork Friday, December 13, 2013

For each transformation of the reciprocal function $y = \frac{1}{x}$ give the following:

- a. The location of the branches
 b. The equation of the Horizontal Asymptote.
 c. The equation of the Vertical Asymptote.

1.
$$y = \frac{-2}{x} + 4$$

2.
$$y = \frac{5}{x} - 3$$

Location of Branches:

Location of Branches:

HA:

HA:

VA:

VA:

3.
$$y = \frac{-2}{x+4}$$

4.
$$y = \frac{5}{x-3}$$

Location of Branches:

Location of Branches:

HA:

HA:

VA:

VA:

5.
$$y = \frac{-3}{x-2} + 1$$

5.
$$y = \frac{-3}{x-2} + 1$$
 6. $y = \frac{7}{x+6} - 9$

Location of Branches:

Location of Branches:

HA:

HA:

VA:

VA: