**H. Algebra II - Bellwork #20 March 7th, 2019**

1. Solve.

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

2. Find all x-intercepts, Holes, and equations of VA, if any:

$$y=\frac{2x^{4}+6x^{3}-50x^{2}-150x}{4x^{2}+28x+40}$$

x - int:

Holes:

Eq. of VA:

3. For each rational function find all y-intercepts and equations of HA, if any.

a) $y=\frac{7x^{3}+8x^{2}-4}{5x^{3}-8x^{2}+2x}$ b) $y= \frac{6x^{2}-9x+13}{12x^{3}+8x^{2}-3}$

y-int: y-int:

Eq. of HA: Eq. of HA:

4. Simplify. State restrictions on the variables.

$$\frac{10x^{3}+30x^{2}}{x^{2}-x-20}÷\frac{6x^{3}+6x^{2}-36x}{x^{3}-5x^{2}-16x+80}$$

Answer:

Restrictions: