

**Algebra II Warm Up** 2-17-15

**Graph the system of inequalities and tell the quadrants the system lies in.**

$$y \geq -4x + 3$$

$$y \leq \frac{2}{3}x - 1$$

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**Graphing today!!!! Yea!!!!**

Vertical Asymptote

$$f(x) = -\log_3 x$$

x-int:  $(1, 0)$

y-int: None

Asymptote:  $x = 0$

Domain:  $(0, \infty)$

Range:  $(-\infty, \infty)$

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Horizontal Asymptotes

$$f(x) = -2(3)^x$$

x-int: None

y-int:  $(0, -2)$

Asymptote:  $y = 0$

Domain:  $(-\infty, \infty)$

Range:  $(-\infty, 0)$

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Vertical

$$f(x) = -\log_2(x - 4)$$

x-int:  $(5, 0)$

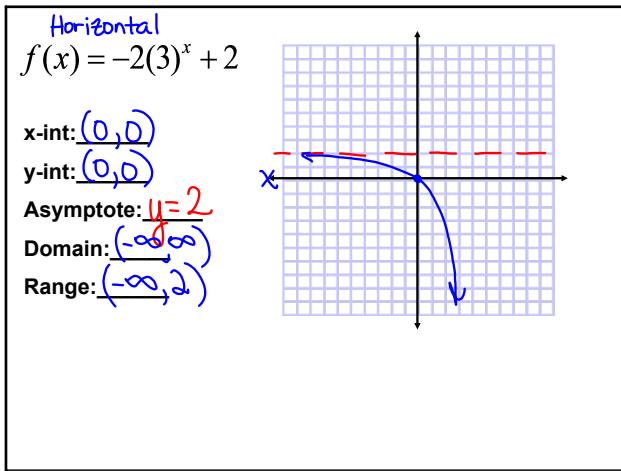
y-int: None

Asymptote:  $x = 4$

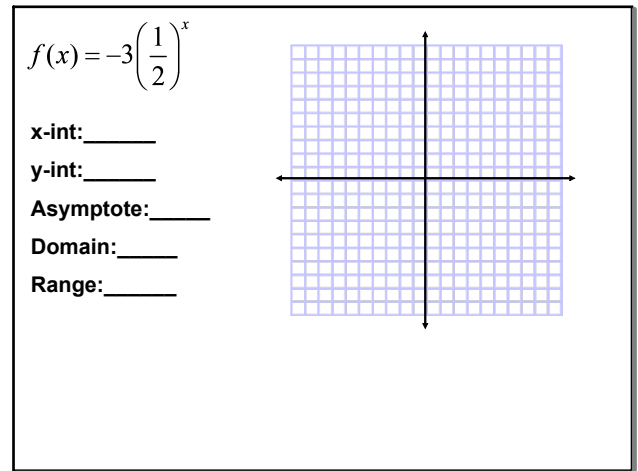
Domain:  $(4, \infty)$

Range:  $(-\infty, \infty)$

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**Conclusion**

1. What happens to the graph of an equation with a negative in the front of the equation? *Reflects*
2. What type of graph has a vertical asymptote? *Log*
3. What type of graph has a horizontal asymptote? *Exponential*
4. Questions????

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**Day 8**  
**Graphs with negatives**  
**Worksheet**

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