Week in Review # 1

1. (a) $f(5) = 51$

   (b) $x = 4$ and $x = -4$

   (c) vertical intercept $= -49$
   horizontal intercepts are 3.5 and -3.5

2. Graph given in written solutions.

3. (a) $N = F(H)$

   (b) There are only 30 species of birds at an elevation of 1,500 feet above sea level.

4. point-slope form: $y = 2.5x + 22.5$
   slope-intercept form: $y - 10 = 2.5(x + 5)$

5. $y = -2.2x + 22$

6. (a) $m = \frac{-8}{5} = -1.6$

   (b) $\frac{-J}{5}$

   (c) $\frac{-J}{8}$

   (d) y decreases by 3.2

7. (a) When the truck is 5 years old its values will be 14 thousand dollars.

   (b) The **slope** says that the value of the chevy truck decreases by \$750 each year.
   The **vertical intercept** says the initial value of the chevy truck is \$31,450 dollars.

8. (a) \$2.16

   (b) \$2.09

   (c) $t = 22$, i.e. January 13
   $t = 24$, i.e. January 15

9. $y = -3.6057x + 63.6584$

10. (a) $y = 8.5421x - 401.2325$

    (b) the slope says that for an increas of one inch, the weight increases by 8.5421 pounds.

    (c) 171.0882 pounds

    (d) 74.4820 inches