Algebra 1 Bellwork Tuesday, December 17, 2013

1. Convert 2000 Yen per kilogram to $US per ton.

16 ounces = 1 pound	1 Kilogram = 1000 grams
1 ounce = 28.35 grams	$1 US = 102.99 Yen
2000 pounds = 1 ton	

$\frac{2000\ yen}{1\ kilo} \cdot \frac{1\ kilo}{1000\ g} \cdot \frac{28.35\ g}{1\ oz} \cdot \frac{16\ oz}{1\ lb} \cdot \frac{2000\ lb}{1\ ton} \cdot \frac{1\ \$US}{102.99\ yen} = \frac{\$17617.24}{ton}$

2000/1000 * 28.35 * 16 * 2000/102.99

2. Solve this proportion.

$$\frac{4x+9}{2x-7} = \frac{6}{5}$$

$5(4x+9) = 6(2x-7)$

$20x + 45 = 12x - 42$

$-20x \quad -20x$

$45 = -8x - 42$

$+42 \quad +42$

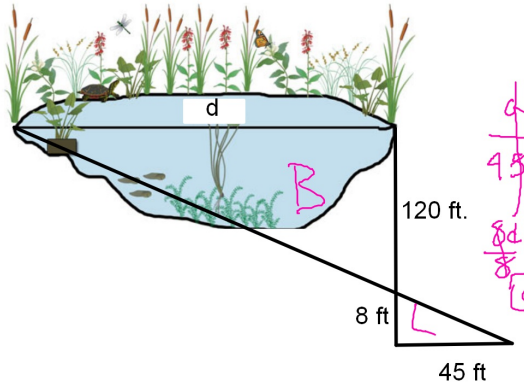
$\frac{87}{8} = \frac{-8x}{-8}$

$x = -10.875$

3. 7 is 210% of what number?

$\frac{210\%}{100\%} = \frac{7}{x} = 3.\overline{3}$

4. To measure the distance across a body of water some stakes were placed in the ground to create similar triangles. The distances between the stakes is shown. Find d.



$\frac{B}{L}$

$\frac{d}{45} = \frac{120}{8}$

$\frac{8d}{8} = \frac{5400}{8}$

$d = 675$ ft

5. The scale on the model of a ship is 3:250. If the model is 8 inches tall, how tall is the actual ship? Give your answer in feet.

$\frac{3}{250} = \frac{8}{x}$ $\quad \frac{3}{250} = \frac{6}{x}$

$3x = 250(8)$

$\frac{3x}{3} = \frac{2000}{3}$

666.67 inches

$\frac{666.67}{12}$

55.56 ft

6. What percent of 350 is 1.2?

$\frac{1.2}{350} = \frac{x}{100}$ $\quad \frac{120}{350} = 350x$

.343%