Chemistry 115
Dr. Cary Willard
Quiz 2A (20 points)

Name_____

February 12, 2009

All work must be shown to receive credit.

1. (5 points) Use dimensional analysis to determine the number of dimes that are equal to 327 quarters.

$$?\ dimes = 327\ quarters \times \frac{5\ nickels}{1\ quarter} \times \frac{1\ dime}{2\ nickels} = 818\ dimes$$

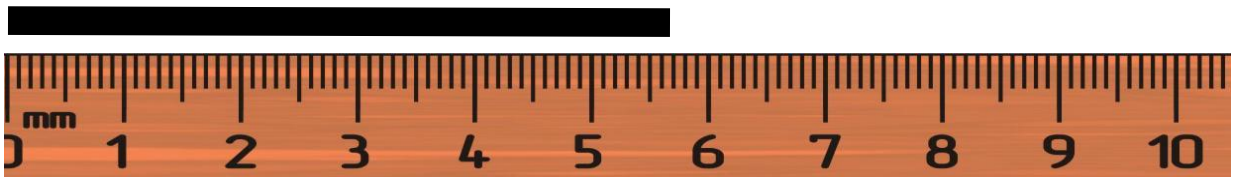
2. (5 points) A horse has a mass of 487 kg. What is the mass of the horse in ounces? (1 lb = 16 ounces)

$$?\ ounces = 487\ kg \times \frac{2.20\ lb}{1\ kg} \times \frac{16\ oz}{1\ lb} = 1.71 \times 10^4 ounces$$

3. (5 points) A bottle of soda holds 345 mL of soda. How many µL (microliters) of soda does the bottle hold?

$$?\ \mu L = 345\ mL \times \frac{1\ L}{1000\ mL} \times \frac{1000000\ \mu L}{1\ L} = 3.45 \times 10^3\ \mu L$$

4. (5 points) The ruler below is calibrated to measure centimeters. How long is the line in cm? 5.75 cm



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Quiz 2B (20 points)

Name_____

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1. (5 points) Use dimensional analysis to determine the number of dimes that are equal to 255 quarters.

$$?\ dimes = 255\ quarters \times \frac{5\ nickels}{1\ quarter} \times \frac{1\ dime}{2\ nickels} = 638\ dimes$$

2. (5 points) A horse has a mass of 571 kg. What is the mass of the horse in ounces? (1 lb = 16 ounces)

$$?\ ounces = 571\ kg \times \frac{2.20\ lb}{1\ kg} \times \frac{16\ oz}{1\ lb} = 2.01 \times 10^4 ounces$$

3. (5 points) A bottle of soda holds 255 mL of soda. How many µL (microliters) of soda does the bottle hold?

$$?\ \mu L = 225\ mL \times \frac{1\ L}{1000\ mL} \times \frac{1000000\ \mu L}{1\ L} = 2.25 \times 10^3\ \mu L$$

4. (5 points) The ruler below is calibrated to measure centimeters. How long is the line in cm? 7.25 cm