**Quiz 2A**

# Directions: Answer each of the following questions. Be sure to use complete sentences where appropriate. For full credit be sure to show all of your work. Where appropriate answers should be boxed for clarity, written to the correct number of significant figures, and, include the proper units.

1. Give three characteristics of a liquid (3 points)

Fixed volume

Variable shape

Not compressible

Atoms/molecules are close together, but free to move within the fixed volume

Moderate attractive forces

1. Ivermectin is used to treat dogs that have intestinal parasites. The effective dosage of this drug is 10.5 µg/kg of body weight. How much ivermectin should be given to a 9.0 kg dog (3 points)?

$$9.0 kg body weight×\frac{10.5 μg}{1 kg body weight}=94.5 μg $$

1. What is the purpose of Experiment 3: Mass, Volume, and Density (4 points)?

The purpose of the experiment is to learn how to properly make mass, volume and length measurements using common laboratory equipment and determine the density of a liquid, an irregular solid. Also learn to create graphs in chemistry class.

1. Which is larger (3 points)?
2. 1 yd or 1 m
3. 1 °F or 1 °C
4. 1 cup or 1 mL
5. A dime is about 1.0 mm thick and has a mass of about 2.21 grams (7 points).
	1. Approximately how many inches thick is a dime?

$$1.0 mm×\frac{1 cm}{10 mm}×\frac{1 in}{2.54 cm}=0.039370079 in ≈0.039 in$$

* 1. Approximately how many pounds is a dime?

$$2.21 g×\frac{1 lb}{454 g}=0.004867841 lb ≈0.00487 lb$$