Name: _____   _____ %

Date: _____ Period: _____   _____ Points

Density: Got Gas? Assessment

1. An unknown solid has a mass of 12.6 grams and a volume of 2.68 cm^3. What is the density of this unknown solid? (Show all steps of your work.)

   _____

   _____

   _____

2. An unknown liquid has a volume of 96.4 ml and a mass of 482.0 g. What is the density of this unknown liquid? (Show all steps of your work.)

   _____

   _____

   _____

3. If you put the unknown solid (from question #1) into the unknown liquid (from question #2), would the solid float or sink? _____ Why do you say this?

   _____

   _____

   _____

4. What are **two** uses of knowing an object's density? _____

   _____

   _____

5. Your friend asks you why they always have hot air balloon races in the early morning. Explain to your friend why they do this, using the knowledge you gained in this unit.

_____

_____

_____

6. You are filling a hot air balloon up with hot air. The air gun stops working correctly and starts blowing out cooler air. What will happen to the density of the air when the temperature decreases? _____

_____

Why does this happen to the density? _____

_____

_____

7. What is the operational definition for density? _____

_____

Don't Forget to Do the Lab Section of This Test!!!
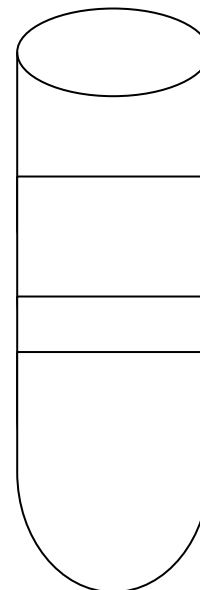
Lab Section:

Using any of the equipment at your lab station, calculate the density of Unknown Liquid A. (The liquid can be found at the supply center.)

Density of Liquid A is _____. Here is what I did to find the density of this liquid: (Be very detailed in your explanation.)

_____

_____

_____

_____

Liquid X has a density of 2.64 g/ml. Liquid Z has a density of 0.77 g/ml. You just calculated the density of Liquid A. If you poured these three liquids together in a test tube, they would form layers. In the test tube below, label where each liquid would be in the test tube.

Using any of the equipment at your lab station, calculate the density of Unknown Liquid B. (The liquid can be found at the supply center.) Density of Liquid B is _____. Here is what I did to find the density of this liquid: (Be very detailed in your explanation.)

_____

_____

_____

Liquid X has a density of 2.64 g/mL. Liquid Z has a density of 3.66 g/mL. You just calculated the density of Liquid B. If you poured these three liquids together in a test tube they would form layers. In the test tube below, label where each liquid would be in the test tube.