**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. Are the following statements true or false (4 points)?

|  |  |  |
| --- | --- | --- |
| a. | The salt solution has a density between 1.00 g/mL and 1.50 g/mL. | True |
| b. | Your percent error may not have a positive value. | False |
| c. | To determine the volume of water in a graduated cylinder, you should read the bottom of the meniscus. | True |
| d. | Graphs are plotted independent vs. dependent variable. | False |

1. Suppose that you need 710. mL of tomatoes to make salsa, but only have cups. How many cups of tomatoes do you need (5 points)?
2. Complete the following table (3 points):

|  |  |
| --- | --- |
| Type of Measurement | Intensive or Extensive Property |
| Mass | Extensive property |
| Volume | Extensive property |
| Temperature | Intensive property |

1. State three properties of a gas (3 points).

Answers may vary.

Able to flow

Variable shape

Variable volume

Really compressible

Low-no attractive forces

Low density

High energy

Atoms/molecules are far apart, and may move anywhere within their container

1. Identify each as a mixture or pure substance (5 points).
   1. Table salt (NaCl) \_\_\_\_\_\_pure substance\_\_\_\_\_\_\_\_\_
   2. Ethanol (CH3CH2OH) \_\_\_\_\_\_\_pure substance\_\_\_\_\_\_\_\_\_\_\_
   3. Air (mostly N­2 and O2) \_\_\_\_\_\_\_\_mixture\_\_\_\_\_\_\_\_\_\_\_\_\_
   4. Whole blood \_\_\_\_\_\_\_mixture\_\_\_\_\_\_\_\_\_\_\_\_\_
   5. Root beer float \_\_\_\_\_\_\_mixture\_\_\_\_\_\_\_\_\_\_\_\_\_\_