

**Section 16.2 Guided Reading (Part 1) - Molarity:** Use textbook page 525-527 to answer the following.

1. What is the **concentration** of a solution?

a. What does it mean for a solution to be "**dilute**"?

b. What does it mean for a solution to be "**concentrated**"?

2. What is "molarity"?

What is the abbreviation for molarity?

3. How is the molarity of a solution calculated?

What is the formula to calculation molarity?

4. Read Sample Problem 16.2 on page 526, then answer the following:

a. A solution has a volume of 250 mL and contains 0.70 mol NaCl. What is its molarity?

b. A solution has a volume of 2.0 L and contains 36.0 g of glucose ( $C_6H_{12}O_6$ ). If the molar mass of glucose is 180 g/mol, what is the molarity of the solution?

5. Read Sample Problem 16.3 on page 527, then answer the following:

a. How many moles of ammonium nitrate are in 335 mL of 0.425M  $NH_4NH_3$ ?

b. What mass in grams of  $CaCl_2$  are in 250. mL of a 2.0M  $CaCl_2$  solution? (Don't forget to do the volume conversion!)