**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Formula for Molarity: Formula for Molality:

Why are there two different formulas for concentration?

What must be done mathematically if our solvent was measured in grams (g)?

What must be done mathematically if our solvent was measured in mL?

What must be done mathematically if our solute was measured in (g)?

Practice Problems

1. a. What is the molarity of a 1.50 L solution that is made from 11.7 g of NaCl?

b. What is the molarity of a HCl solution that contains 15.2 g of HCl in 300 ml of solution?

c. How many moles of NaCl are in 1.25 L of 0.255 M NaCl?

d. How many grams of HCl exist in 500. ml of 1.5 M solution of HCl?

c. What volume of 0.500 M solution of HBr is needed for a reaction that requires 35.0 g of HBr?

2. a. What is the molality of a solution composed of 15.0 g NaCl dissolved in 500.0 g of water?

b. How many grams of NaCl are needed to prepare a 1.3 m solution using 250 g of solvent?

c. What mass of a 0.245 m NaCl solution contains 1.2 mol of this salt?