Skill Practice 53

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

Molarity Practice

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hour: \_\_\_\_\_

1. Calculate the molarity of the following solutions:
   1. 45 g of Na2SO4 in 150 mL of solution.
   2. 24.6 g of (NH4)2CO3 in 75 mL of solution.
   3. 73.1 g of Ca(NO3)2 in 125 mL of solution.
2. What is the concentration of sulfate ions, SO4-2, in each of the following?

a) 0.75 M Al2(SO4)3 b) 1.35 M Na2SO4

1. What is the molarity of chlorine ions in solution when 47 g of AlCl3 is dissolved in a 210 mL of solution?
2. Which of the following solutions has the highest concentration? Prove using calculations.

A) 12.5 g of CaCl2 in 40 mL of solution B) 20.9 g of MgI2 in 35 mL

1. How many grams of salt (NaCl) need to be dissolved in 300 mL of solution to give you a solution that has a concentration of 1.2 M? (Hint: you need to work backwards on this one. You are given the molarity and the liters, so find the moles and convert to grams.)