

HONORS CHEMISTRY  
HOMEWORK 3f.

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

Complete the following problems, **SHOWING ALL WORK**:

**1.** Find the number of moles in each of the following:

a. 14.2 g of sodium sulfate

c. 88 g of boron trifluoride

b. 8.9 g of calcium acetate

d. 1.05 kg of iron (III) carbonate

**2.** Find the percentage composition of each of these:

a. sulfuric acid

c. magnesium nitrate

b. silicon dioxide

d. potassium carbonate

**3.** A compound is broken down into its elements ("elemental analysis") and found to contain 24.4% Ca, 58.5% O, and 17.1% N by mass.

a. Find the empirical formula.

b. Suggest the name of a compound that might have this empirical formula.