REVIEW QUESTIONS
Chapter 5

1. Two samples of a compound containing carbon and chlorine are decomposed and the following data was obtained:

Sample 1	38.9 g C	448 g of Cl
Sample 2	14.8 g C	134 g of Cl

   Based on the data obtained, are these samples the same compound? Show why or why not.

2. A 7.83 g sample of HCN contains 2.90 g of H and 4.06 g of N. Find the mass of carbon in a sample of HCN with a mass of 3.37 g.

3. For the compounds listed below, determine the number of elements and the total number of atoms in each:

   a) $C_{17}H_{22}ClNO_4$ # of elements:_____ # of atoms:_____

   b) $(NH_4)_2Cr_2O_7$ # of elements:_____ # of atoms:_____

   c) $CuSO_4 \bullet 5\ H_2O$ # of elements:_____ # of atoms:_____

4. Complete the table below with the missing information:

Formula	No. of ions	No. of Oxygen atoms	No. of Hydrogen atoms
$Al(HSO_4)_3$			
$Ca(C_2H_3O_2)_2$			
$(NH_4)_3PO_4$			

5. Name each compound shown below:

a) $KClO_3$ _____

b) $Fe(OH)_3$ _____

c) Ag_2S _____

d) BrF_5 _____

e) $Pb(CO_3)_2$ _____

f) NI_3 _____

6. Write formula for each compound below:

a) Copper(II) chlorite _____

b) tetraphosphorus triselenide _____

c) iron(II) phosphate _____

d) magnesium nitride _____

e) ammonium carbonate _____

7. Is each name correct for the given formula? If not, provide the correct name.

a) HNO_3 (aq) hydrogen nitrate

b) CaI_2 calcium diiodide

c) $Pb(CO_3)_2$ lead(II) carbonate

d) PCl_5 phosphorus chloride

8. Complete the table below with the missing information:

Formula	**Type of Compound (Ionic, Molecular, Acid)**	**Name**
N_2H_4		
		potassium nitrate
H_2CO_3		
		carbon tetrabromide