

WKS 3-3 – Chem 1
Definite & Multiple Proportions

NAME _____
Period _____ **Date** _____

Read Ch. 3.4, pp. 75-77 (No math for multiple proportions) then answer the following questions.

1. Explain how the Law of Definite Proportions applies to compounds.
2. How is the Law of Definite Proportions important in distinguishing compounds from physical mixtures?
3. How is percent composition of a sample determined?
4. A 75.00 g sample of aspirin (acetylsalicylic acid) contains 45.00 g C, 3.36 g H, and the remainder O. What is the % composition of aspirin?
5. From the %mass in the previous problem, what mass of O is in a 2.00 g sample of aspirin?
6. What types of compounds are compared in the law of multiple proportions?
7. Which of the following compounds demonstrate the law of Multiple Proportions (there may be more than one)?
 - a. C_2H_6 & $C_{10}H_8$
 - b. Li_2O & Li_2CO_3
 - c. P_2O_5 & H_3PO_4
 - d. N_2O & N_2O_5
8. Complete the following table and then analyze the data to determine if compounds I and II are the same compound. Show all your work below the table.

Analysis Data of Two Iron Compounds					
Compound	Total Mass (g)	Mass Fe (g)	Mass O (g)	Mass % Fe	Mass % O
I	75.00	52.46	22.54		
II	56.00	43.53	12.47		