

### Chemistry – Chapter 10 Book assignment #3: % composition

1. A compound is formed when 9.03 g Mg combines completely with 3.48 g N. What is the percent composition of this compound?
2. When a 14.2 g sample of mercury (II) oxide is decomposed into its elements by heating, 13.2 g Hg is obtained. What is the percent composition of the compound?
3. Calculate the percent by mass of nitrogen in these fertilizers.
  - a.  $\text{NH}_3$
  - b.  $\text{NH}_4\text{NO}_3$
4. Calculate the percent composition of these compounds.
  - a. ethane ( $\text{C}_2\text{H}_6$ )
  - b. sodium hydrogen sulfate ( $\text{NaHSO}_4$ )
5. Calculate the grams of nitrogen in 125 g of each fertilizer.
  - a.  $\text{NH}_3$
  - b.  $\text{NH}_4\text{NO}_3$
6. Calculate the mass of hydrogen in each of the following compounds:
  - a. 350 g ethane ( $\text{C}_2\text{H}_6$ )
  - b. 20.2 g sodium hydrogen sulfate ( $\text{NaHSO}_4$ )