Review Questions

1. Calculate the formula mass for each of the following.
   a. K_2SO_4
   b. CuO
   c. $Mg_3(AsO_4)_2$
   d. $Ca_3(PO_4)_2$
   e. Fe_2O_3
   f. $Al(OH)_3$
   g. $(NH_4)_2S$
   h. $C_{12}H_{22}O_{11}$
2. On average, how many times heavier are bromine atoms than neon atoms?
3. An unknown element, M, combines with oxygen to form a compound with a formula of MO_2. If 25.0 grams of the unknown element combines with 4.50 grams of oxygen, what is the atomic mass of M?

Lesson Summary

- The percent composition of a compound is the percent of the total mass contributed by each element in the compound.
- Percent composition can be determined either from the masses of each element in the compound or from the formula of the compound.

Further Reading / Supplemental Links

This website has solved example problems for a number of topics covered in this lesson, including the calculation of percent composition by mass.

- http://www.sciencejoywagon.com/chemzone/05chemical-reactions/

This website has lessons, worksheets, and quizzes on various high school chemistry topics. Lesson 5-8 is on percent composition.

- http://www.fordhamprep.org/gcurran/sho/sho/lessons/lesson58.htm

The website below reviews how to calculate percent composition.

- http://www.ausetute.com.au/percentc.html

Review Questions

Determine the percent composition of the following compounds.

1. BF_3
2. $Ca(C_2H_3O_2)_2$
3. FeF_3
4. $CrCl_3$
5. $(NH_4)_3PO_4$