

**Determine the empirical formula of the following:**

- 1. The mineral greenockite is a yellow sulfide of cadmium that is 78.0% cadmium and 22.0% sulfur. Determine the empirical formula of greenockite.**
- 2. What is the empirical formula for a compound of aluminum and fluorine that is 32% aluminum and 68% fluorine?**
- 3. What is the empirical formula for a compound that is 26.56% potassium, 35.41% chromium, and 38.03% oxygen?**
- 4. What is the empirical formula for a compound that is 33.36% calcium, 26.69% sulfur, and 40.00% oxygen?**

- 5.** What is the empirical formula for a compound that is 29.44% calcium, 23.55% sulfur, and 47.01% oxygen? This compound is a common ingredient in plaster.
- 6.** The empirical formula of a compound is CH. The experimental molar mass is 78.12 g/mol. Determine the molecular formula of the compound.
- 7.** The empirical formula of a compound is CH<sub>2</sub>O. The experimental molar mass is 60.06 g/mol. Determine the molecular formula of the compound.
- 8.** The empirical formula of a substance is P<sub>2</sub>O<sub>5</sub>. The experimental molar mass is 283.89 g/mol. Determine the molecular formula of the compound.