Chapter 7 Problem VI

Name	

- 1. A compound contains 27.36% Na, 1.20% H, 14.30% C and 57.14% O. Calculate the correct formula.
- 2. Calculate the % composition for: a) NaCl _____% Na b) H₂O ____% H ____% O
- 3. Hexane contains 83.6% C and 16.4% H by weight. What is the formula?
- 4. Determine the formula of a compound containing 32.3 g Co; 1.66 g H, 7.68 g N, 58.3 Cl.
- 5. Compound Y contains 26.5% Na, 36.8% S and 36.8% O. Find its formula.
- A hydrocarbon has the simplest (empirical) formula of C₁H₁. What is its molecular formula if its MW is:
 a) 26
 b) 52
 c) 78
- 7. Iron reacts with sulfur to form iron sulfide. If 2.561 g of Fe react with 2.206 g of S, what is the formula for iron sulfide?
- 8. The insecticide contains only C, H and Cl. It's formula is C₁₀H₁₂Cl₄. Calculate the % composition for C, H and Cl.

- 9. In 4.50 g of an organic compound, acetic acid, there are found to be 1.80 g of Carbon, 2.40 g of O, and 0.30 g H. What is the formula?
- 10. The composition of aluminum sulfate is 15.7% AI, 28.0% S, 56.1% O. What is the formula?

11. Napthalene has the empirical formula of C_1H_1 . If its molecular weight is 156 g/mol, what is the true formula?

12. Nitroglycerine contains 15.87% C, 2.22% H, 18.50% N, and 63.41%O. Calculate the formula.

13. Calculate the % composition of these compounds. a) NaOH

b) $AI_2(SO_4)_3$