1. (5 points) Name the following compounds.
   a. $\text{P}_2\text{O}_5$ ________________________________
   b. $(\text{NH}_4)_2\text{SO}_4$ ________________________________
   c. $\text{FeS}$ ________________________________
   d. $\text{K}_2\text{SO}_4$ ________________________________
   e. $\text{NBr}_3$ ________________________________

2. (5 points) Write formulas for the following compounds.
   a. sodium phosphate ________________________________
   b. iodine trichloride ________________________________
   c. copper (II) iodide ________________________________
   d. calcium hydroxide ________________________________
   e. aluminum bromide ________________________________

3. (4 points) A compound is found to consist of 47.4 %C, 10.5 %H, and 42.1 %O. Its formula weight is 228. Find both the empirical formula and the molecular formula for the compound. **SHOW YOUR WORK.**
4. (6 points) Answer each of the following questions. **SHOW YOUR WORK.**

   a. How many atoms are contained in 1000 molecules of NCl₃?

   b. How many grams are contained in 0.745-mol of CHBr₃?

   c. What mass of nitrogen is contained in 85.0-g of NF₅?