*Stoichiometry Calculation Practice*

1. The reaction between silver ion and solid zinc is represented by the following equation:

2Ag+(aq) + Zn(s)  → Zn2+(aq) + 2Ag(s)

A 1.50 g sample of Zn is combined with 250. mL of 0.110 M AgNO3 at 25oC.

1. Identify the limiting reactant. Show calculations to support your answer.
2. On the basis of the limiting reactant that you identified in part (i), determine the value of [Zn2+] after the reaction is complete.
3. A 0.7549 g sample of compound containing carbon, hydrogen, and oxygen burns in O2(g) to produce 1.9061 g of CO2(g) and 0.3370 g of H2O(g).
4. Calculate the individual massed of C, H, and O in the 0.7549 g sample.
5. Determine the empirical formula for the compound.