**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 09/26/22**

**Workshop 3 – Chapter 3.4 and Chapter 4.1-4.2**

1. Identify the following for the reaction below.
   1. Overall ionic equation (including states). If no reaction occurs, write NR.
   2. Net Ionic Equation (including states). If no reaction occurs, write NR.
   3. Spectator Ions (if any).

1. Ammonium sulfate reacts with silver perchlorate
2. Lithium cyanide reacts with lead(II) acetate
3. Classify the following water soluble substances as strong electrolytes, weak electrolytes, or nonelectrolytes in aqueous solution.



1. Identify whether the reaction is an oxidation reduction reaction. If so, identify what is oxidized, reduced, the oxidizing agent, and the reducing agent.
2. How many grams must be present in 500.0 L of a solution containing 2.35 ppb ?
3. Isopropyl alcohol, is a common ingredient in antiseptics, disinfectants, and detergents. What is the molarity of a 70.0% isopropyl alcohol by volume solution? Isopropyl alcohol has a density of 0.786 g/mL.