Precipitate Analysis Lab Report

- I Fill out a good copy of the "Precipitate Analysis Test Observations" observation table which includes either "soluble combination" or "ppte" in each box the nine observation boxes. If a precipitate (ppte) was observed, include a visual description as well as the correct formula of the precipitate.
- II Create a good copy of the "ppte analysis flow chart" as shown on the board (should be one full page) - please use a ruler.
- III Create a table of for the eight unknowns that were tested by the class using the column headings:

Unknown	Cl ¹⁻ Test with SO_4^{2-}	Test with Fe(CN) ₆ ⁴⁻
Number	(Na ₂ SO ₄)	(K ₄ Fe(CN) ₆)
Ag ¹⁺ Prese	nt Ba ²⁺ Present	Zn ²⁺ Present

- IV Answers to the following questions:
- 1. Pick two of the unknowns that were tested. Using the flow chart for reference, state wether Ag¹⁺, Ba²⁺ or Zn²⁺ was present or absent. For each determination write a complete statement that makes sense, such as: "Ag¹⁺ was present because a precipitate was observed with Cl¹⁻ from NaCl" or "Ag¹⁺ was not present because no precipitate was observed with Cl¹⁻ from NaCl". To answer this question properly you will need to write a total of three statements per unknown. Be sure to identify the unknown your are doing and be sure to organize your work in a logical and attractive manner (perhaps indentation would help).
- 2. Write molecular, ionic and net ionic equations for all four possible precipitate reactions. These precipitates can be identified using the table from part I. Yes this is the long and difficult type of question. Don't forget your charges!!!
- 3. You are given a solution that contains these ions:

 Ca^{2+} Fe³⁺ Pb²⁺ Sr^{2+}

Design a flow chart that will analyze for and separate these ions. Use the solubility rules to complete this.