Assignment #7: Solubility Calculations

- 82) Calculate the solubility of each of the following compounds in moles per liter. Ignore any acid-base properties.
 - a. PbI_2 $K_{sp} = 1.4 \times 10^{-8}$
 - b. $CdCO_3$ $K_{sp} = 5.2 \times 10^{-12}$
 - c. $Sr_3(PO_4)_2$ $K_{sp} = 1 \times 10^{-31}$
- 90) The K_{sp} for silver sulfate, Ag₂SO₄, is 1.2 X 10⁻⁵. Calculate the solubility of silver sulfate in each of the following:
 - a. water
 - b. 0.10 M AgNO₃
 - c. 0.20 M K₂SO₄
- 97) Will a precipitate form when 75.0 mL of 0.020~M BaCl₂ and 125 mL of 0.040~M Na₂SO₄ are mixed together?

98) Will a precipitate form when 100.0 mL of 4.0 X 10^{-4} M Mg(NO₃)₂ is added to 100.0 mL of 2.0 X 10^{-4} M NaOH?