Name:_____
Blk:_____Date:_____

Chemistry 12
Solubililty Lesson #2

CALCULATING *SOLUBILITY* AND *ION CONCENTRATIONS*

SOLUBILITY (g/L) is defined as:_____
_____.

MOLAR SOLUBILITY (mol/L) is:_____
_____.

Example 1 : It is determined experimentally that 1 L of saturated $AgBrO_3$ (aq) contains 1.96 g of $AgBrO_3$. What is the MOLAR SOLUBILITY of $AgBrO_3$?

Example 2: The Molar solubility of PbI_2 is 1.37×10^{-3} M. Express this value in grams per Litre.

Example 3: Experimentally it is found that 250.0 mL of saturated $CaCl_2$ contains 18.6 g of $CaCl_2$ at 20 °C. What is the molar solubility of $CaCl_2$?

CALCULATING ION CONCENTRATIONS

Example 1: What are the individual ion concentrations contained in 1 M of Na_3PO_4 (aq) ?

Example 2: What is the concentration of all ions present in a saturated solution of Ag_2CO_3 having a molarity of 1.2×10^{-4} M?

Example 3: If 5.0 mL of 0.020 M Cl^{1-} is added to 15.0 mL of 0.012 M Br^{-1-}, what is the molarity of Cl^{1-} and Br^{1-} ions in this mixture?

RECALL the Dilution Equation : $M_I V_I = M_F V_F$

Example #4: Calculate the conentration of all ions present when 10.0 mL of 0.100 M $Ba(NO_3)_2$ is mixed with 40.0 mL of 0.300 M $AgNO_3$

Seat work/HOMEWORK: 8 -14 pg 77-78, 18-20 (odd letters) pg 81
PLO's: G1,G2, G3, G4, G5, G6, and G8