K_{sp} Problems Set III – common ion effect

1. What information does the size of Ksp tell us?

2. What is meant by term molar solubility (s)?

3. If two different salt solutions are mixed together, under what conditions would do you expect a solid precipitate to form?

4. The K_{sp} value of NiS is 1.4 x 10^{-24} , what is its molar solubility in:
   a. water   (1.18×10^{-12}M)

   b. a solution of 0.01 M Na_2S (1.4×10^{-22}M)

   c. Why should your answer to **4b** be less than your answer to **4a** ?

5. What is the solubility of silver chloride in 0.20M $AgNO_3$? The Ksp of AgCl is 1.7×10^{-10}. (8.5×10^{-10}M)

$$\leftrightarrows$$

6. Calculate the molar solubility (s) of BaF_2 (K_{sp} = 1.7 x10^{-6}) in 0.20 M NaF.(4.25×10^{-5} M)

$$\leftrightarrows$$