

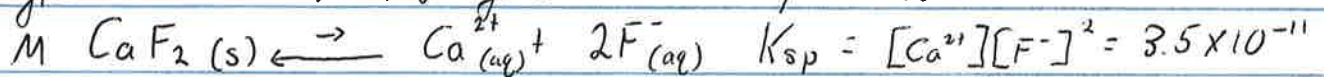
Today: last sections of ch 14 (Ksp stuff)

Monday/Wednesday/Friday: ch 17

Tuesday: Expt 9 (buffer lab)

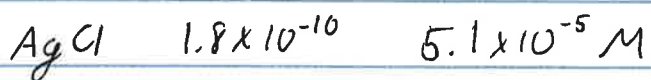
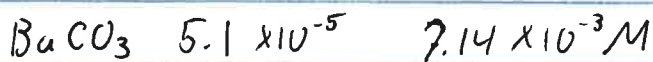
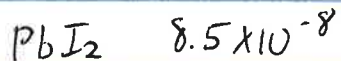
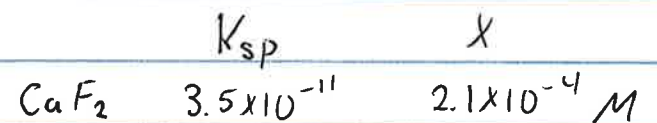
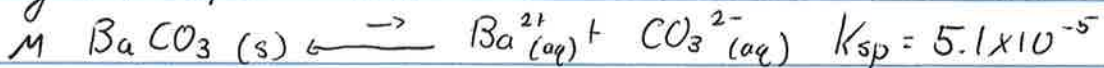
CK3: April 2nd

type 1 Calculation. Solubility of a salt in pure water



$$[Ca^{2+}] = 2.06 \times 10^{-4} M \quad [F^{-}] = 4.12 \times 10^{-4} M$$

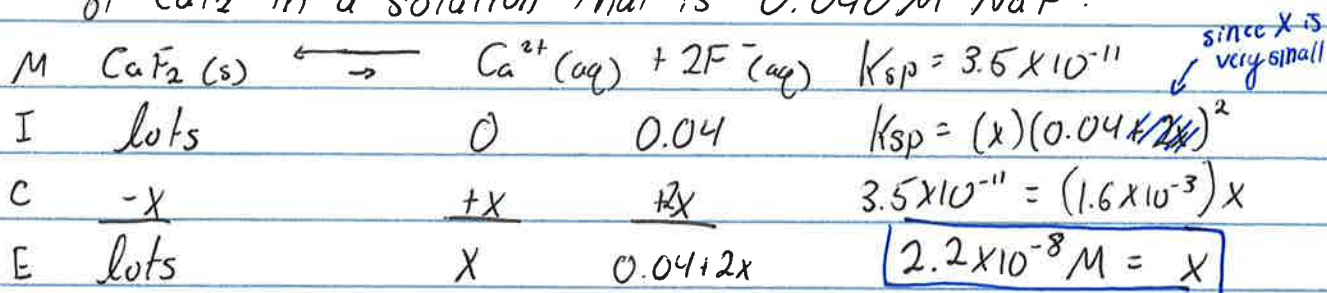
What is the molar solubility of Barium carbonate
given $K_{sp} = 5.1 \times 10^{-5}$?



can compare
just using K_{sp}
(same "type" of formula)

can compare
using x

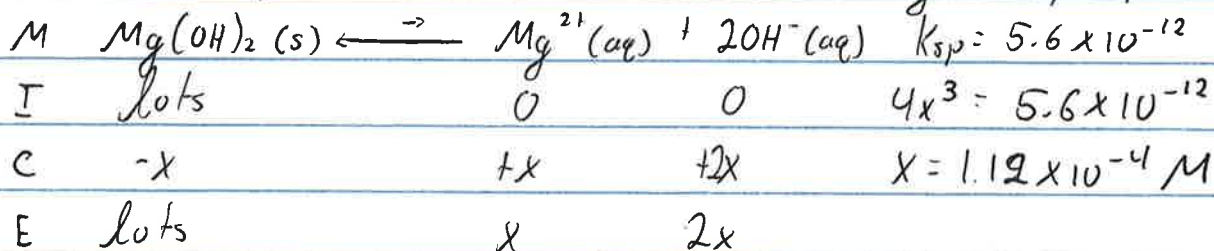
Type 2. Common ion problem. What is the molar solubility of CaF_2 in a solution that is 0.040 M NaF ?



$$[\text{Ca}^{2+}] = 2.2 \times 10^{-8}$$

$$[\text{F}^{-}] = 0.040$$

What is the pH of a saturated solution of $\text{Mg}(\text{OH})_2$, $K_{\text{sp}} = 5.6 \times 10^{-12}$



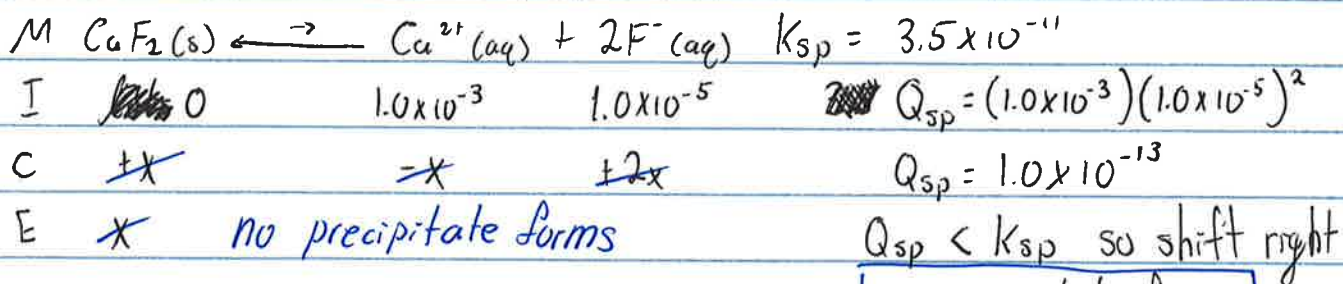
$$[\text{OH}^{-}] = 2.24 \times 10^{-4}\text{ M}$$

$$\text{pOH} = -\log(2.24 \times 10^{-4})$$

$$\text{pOH} = 3.65$$

$$\text{pH} = 10.35$$

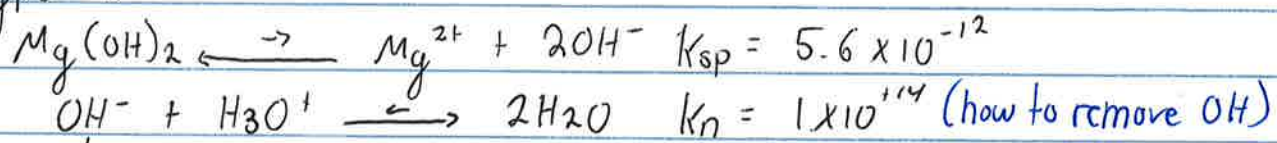
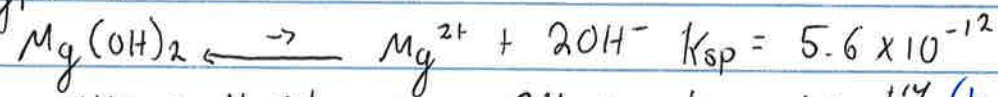
Type 3. Will a precipitate form? Will a precipitate form if a solution contains $1.0 \times 10^{-3}\text{ M Ca}(\text{NO}_3)_2$ and $1.0 \times 10^{-5}\text{ M NaF}$?



no precipitate forms

no equilibrium either

Type 4.



- this will then push the reaction right

