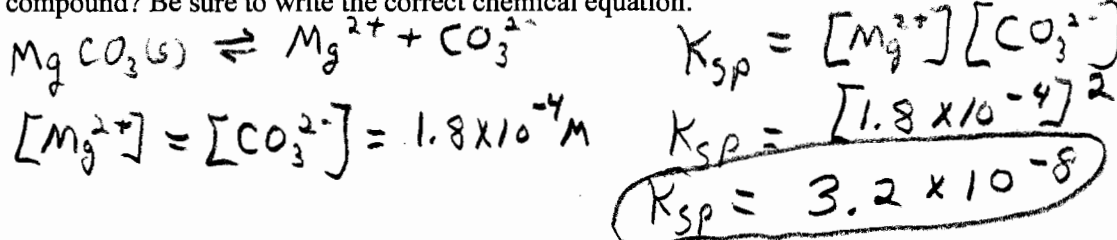
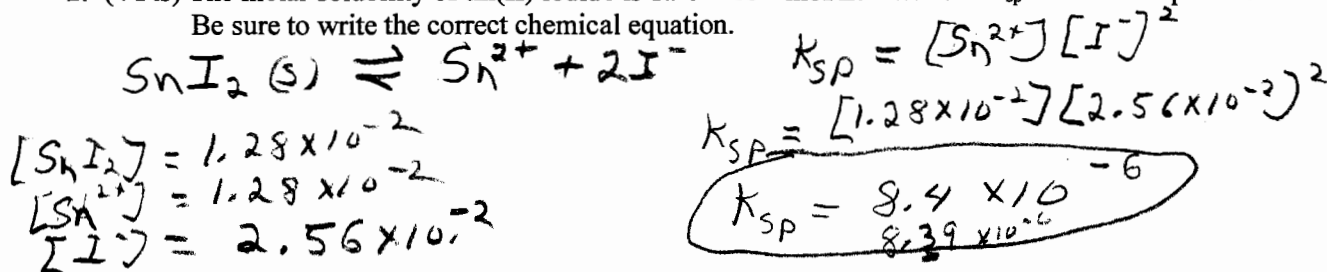


Show all work to receive credit.

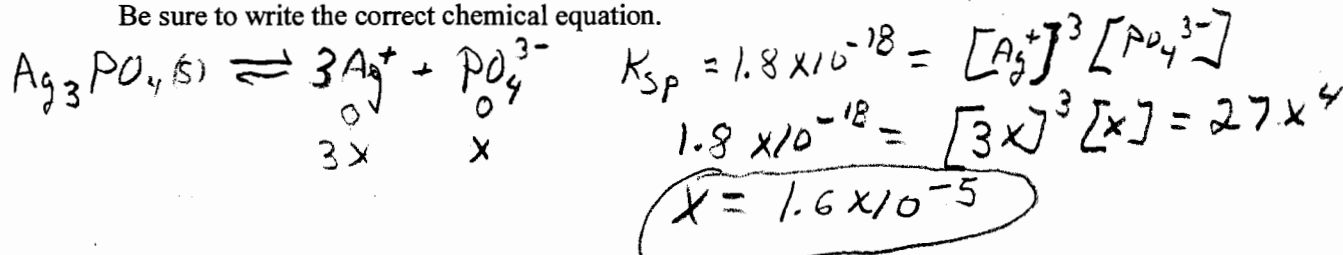
1. (4 Pts) The molar solubility of magnesium carbonate ($MgCO_3$) is 1.8×10^{-4} mol/L. What is K_{sp} for this compound? Be sure to write the correct chemical equation.



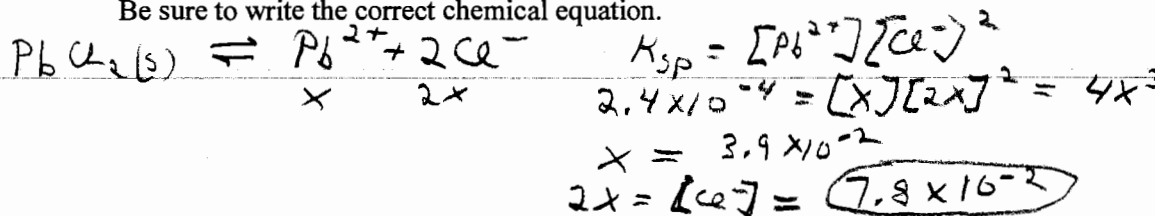
2. (4 Pts) The molar solubility of tin(II) iodide is 1.28×10^{-2} mol/L. What is K_{sp} for this compound? Be sure to write the correct chemical equation.



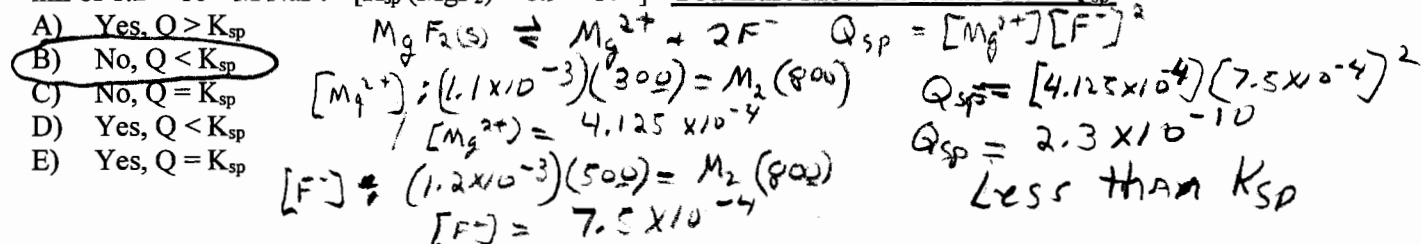
3. (5 Pts) The K_{sp} for silver(I) phosphate is 1.8×10^{-18} . Calculate the molar solubility of silver(I) phosphate. Be sure to write the correct chemical equation.



4. (4 Pts) Calculate the concentration of chloride ions in a saturated lead(II) chloride ($K_{sp} = 2.4 \times 10^{-4}$) solution. Be sure to write the correct chemical equation.



5. (4 Pts) Will a precipitate of magnesium fluoride form when 300. mL of 1.1×10^{-3} M $MgCl_2$ are added to 500. mL of 1.2×10^{-3} M NaF ? [$K_{sp}(MgF_2) = 6.9 \times 10^{-9}$] You must show the value of the Q_{sp} .



6. (4 Pts) Calculate the molar solubility of $BaCO_3$ in a 0.10 M solution of $Na_2CO_3(aq)$. ($K_{sp}(BaCO_3) = 8.1 \times 10^{-9}$)

