Answers to Practice Problems C in page 509

Homework — GENERAL

Additional Practice

a. Calculate the solubility product constant of HgI_2 if the Hg^{2+} concentration in a saturated solution is 1.9×10^{-10} M.
Ans. $K_{sp} = 2.7 \times 10^{-29}$

b. Calculate the solubility product constant of $Fe(OH)_2$ if the OH^- concentration in a saturated solution is 4.6×10^{-6} M.
Ans. $K_{sp} = 4.9 \times 10^{-17}$

c. The K_{sp} of CdF_2 is 6.4×10^{-3}. Calculate the concentration of the ions in a saturated solution of CdF_2.
Ans. $[Cd^{2+}] = 0.12$, $[F^-] = 0.24$

LS Logical

Answers to Practice Problems C

1. $K_{sp} = [Cu^+][Br^-] = (7.9 \times 10^{-5})^2 = 6.2 \times 10^{-9}$
2. $K_{sp} = [Ca^{2+}]^3 [PO_4^{3-}]^2 = (3.42 \times 10^{-7})^3(2.28 \times 10^{-7})^2 = 2.08 \times 10^{-33}$
3. $K_{sp} = [Ag^+][Cl^-] = (1.34 \times 10^{-5})^2 = 1.80 \times 10^{-10}$