

# 17 • Aqueous Equilibria

## 17.4 Solubility Equilibria

### Example #1

The  $K_{sp}$  for  $\text{CaF}_2$  is  $3.9 \times 10^{-11}$  at  $25^\circ\text{C}$ . Assuming that  $\text{CaF}_2$  dissociates completely upon dissolving and that there are no other important Equilibria affecting its solubility, calculate the solubility of  $\text{CaF}_2$  in grams per liter


How many moles can dissolve in 0.50L of water at  $25^\circ\text{C}$ ?

How many moles can dissolve in 0.50L of 0.20 M  $\text{CaSO}_4$  at  $25^\circ\text{C}$ ?


## Practice Problem

The  $K_{sp}$  for  $\text{Cu}(\text{N}_3)_2$  (Copper II Azide) is  $6.3 \times 10^{-10}$ . What is the solubility of  $\text{Cu}(\text{N}_3)_2$  in water in grams per liter?


How many moles can dissolve in 0.50L of water at 25°C?

How many moles can dissolve in 0.50L of 0.10 M  $\text{CuNO}_3$  at 25°C?
