

**Homework 16-10: Chap 16 Review Part 1:** pg. 725-727 # 84, 85, 87, 88, 89, 94, 95, 98, 101

**84** The pH range varies from **2.51 to 4.41**.

**87**  $K_b = 5 \times 10^{-10}$

**88**  $[\text{OH}^-] = 0.0335 \text{ M}$

$$[\text{Na}^+] = 0.0835 \text{ M}$$

$$[\text{H}^+] = 3.0 \times 10^{-13} \text{ M}$$

$$[\text{HCOO}^-] = 0.0500 \text{ M}$$

$$[\text{HCOOH}] = 8.8 \times 10^{-11} \text{ M}$$

**94** **0.036 g/L**

**95** To selectively precipitate  $\text{Zn}(\text{OH})_2$ , the pH must be greater than 8.11 but less than 9.54.

**101** (a) **AgBr** will precipitate first.

(b)  $[\text{Ag}^+] = 1.8 \times 10^{-7} \text{ M}$

(c)  $\% \text{Ag}^+(\text{aq}) = 0.0018\% \text{ or } 1.8 \times 10^{-3}\%$