

Ch. 16.3: Buffers Part 2

- HW # 16-4: p. 722 #13, 16, 28, 37, 38

13  $\frac{[\text{H}_2\text{CO}_3]}{[\text{HCO}_3^-]} = 0.024$

16  $\frac{[\text{HCO}_3^-]}{[\text{H}_2\text{CO}_3]} = 1.0 \times 10^1$

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

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

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

$[\text{CH}_3\text{COO}^-] = 0.0500 \text{ M}$

$K_b = 5.6 \times 10^{-10}$

$[\text{CH}_3\text{COOH}] = 8.4 \times 10^{-10} \text{ M}$

37  $\frac{[\text{HIn}]}{[\text{In}^-]} = 100$

38  $\text{pH} = 5.70$