

Unit 9 – Chapter 15: Acid-Base Equilibrium & Buffers

Name _____

Assignment #1: pH From K_b , pH From Adding Acids, Bases

Period _____

- 1) Calculate the pH of each of the following solutions.
 - a. 0.100 M HONH_2 ($K_b = 1.1 \times 10^{-8}$)
 - b. 0.100 M HONH_3Cl
 - c. pure H_2O
 - d. a mixture containing 0.100 M HONH_2 and 0.100 M HONH_3Cl

- 2) Calculate the pH after 0.020 mol HCl is added to 1.00 L of each of the four solutions in #1.

- 3) Calculate the pH of a solution that is 0.60 M HF and 1.00 M KF.

- 4) Calculate the pH after 0.10 mol of NaOH is added to 1.00 L of the solution in problem #3, then calculate the pH after 0.20 mol of HCl is added to 1.00 L of the solution in problem #3.