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 X 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.