

NAME \_\_\_\_\_ DATE \_\_\_\_\_ SECTION \_\_\_\_\_

INSTRUCTOR \_\_\_\_\_ GRADE \_\_\_\_\_

**EXPERIMENT 20: REPORT FOR THE DETERMINATION OF THE EQUILIBRIUM CONSTANT OF A WEAK ACID OR WEAK BASE****DATA/RESULTS**

SAMPLE NO. \_\_\_\_\_

1. The unknown solution is a weak (acid or base) weak \_\_\_\_\_

*Trial 1*                      *Trial 2*

2. pH of the solution \_\_\_\_\_

3. Average pH value \_\_\_\_\_

4. Molarity of NaOH (or HCl) (your own standardized titrant) \_\_\_\_\_

5. Volume (mL) weak acid (base) used \_\_\_\_\_

6. Volume (mL) of NaOH (or HCl) titrant used \_\_\_\_\_

7. Average volume of titrant used \_\_\_\_\_

8. Average molarity of unknown acid (base) \_\_\_\_\_

9. Average value of K (equilibrium constant) \_\_\_\_\_

10. Show below example calculations for determining the initial molarity of the acid (base), the molarity of  $H^+$  from the pH meter, and the value of K.