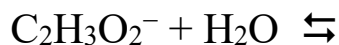


Name: _____ Date: _____ Period: _____ Seat #: _____

1. Consider the weak acid, HC₂H₃O₂. K_a = 1.8 x 10⁻⁵
- Write the acid dissociation equation for acetic acid.
 - What is the conjugate base of acetic acid? _____
 - A base is a proton _____ (donor/acceptor).
 - Finish this equilibrium equation:



- e. Write the K_c expressions for the following reactions:

The equation in "a", the K _a	The equation in "d", the K _b	K _w

- What is the relationship among these three expressions?
- Calculate the value of the K_b for the acetate ion.
- A 0.10 M solution of sodium acetate would have a pH _____ (>7, 7, <7).
- Calculate the [OH⁻] for a 0.10 M solution of sodium acetate. [7.5 x 10⁻⁶ M]

	C ₂ H ₃ O ₂ ⁻	H ₂ O(l)	⇌	HC ₂ H ₃ O ₂	OH ⁻
Initial					
Change					
Equilibrium					

- What is the pOH of the solution? _____ What is the pH of the solution? _____
2. Cyanic acid HOCN has a K_a = 3.5 x 10⁻⁴, what is the K_b for the cyanate ion OCN⁻?
3. Calculate the pH of a 0.35 M solution of potassium cyanide. K_a for HCN = 4.0 x 10⁻¹⁰. [pH = 11.47]