Acid-Base Equilibria: Chemical Reaction Review

Write the generic chemical reaction for the dissociation of a weak acid.

Write a chemical reaction for the dissociation of a specific weak acid.
   Name of weak acid: ______________________
   Acid dissociation constant, $K_a =$ __________  $pK_a =$ ______

Write the generic chemical reaction for the dissociation of a weak base.

Write a chemical reaction for the dissociation of a specific weak base.
   Name of weak base: ______________________
   Base dissociation constant, $K_b =$ __________  $pK_b =$ ______

Write the generic chemical reaction for a buffer composed of a weak acid and its conjugate base.

Write the chemical reaction for a buffer composed of a hypochlorous acid and sodium hypochlorite. What is the pH of this system for 0.10M hypochlorous acid and 0.10M sodium hypochlorite?
Write a generic chemical reaction for the hydrolysis of a weak acid anion, $A^-$.  

What is the pH of the resulting solution? acidic neutral basic  

Write a chemical reaction for the hydrolysis of your favorite weak acid anion.  
Name of anion: __________  

Write a generic chemical reaction for the hydrolysis of a weak base cation, $BH^+$.  

What is the pH of the resulting solution? acidic neutral basic  

Write a chemical reaction for the hydrolysis of your favorite weak base cation.  

Write a generic chemical reaction for acid-base neutralization.  

Complete the following neutralization reactions. Does the salt hydrolyze? If so, write the hydrolysis reaction.  

KOH + HCl $\rightarrow$  
HNO$_2$ + NaOH $\rightarrow$