16 • Acids, Bases and salts

16.6 – 16.7 Lecture Practice Problems

Weak Acid:

1. A student prepared a 0.10 M solution of formic acid, $HCHO_2$, and measured its pH using a pH meter. The pH at 25°C was found to be 2.38.
(a) Calculate the Ka for formic acid at this temperature

Initial			
Change			
Equilibrium			

Weak Base:

2. Calculate the concentration of OH^- in a 0.15 M solution of NH_3. $K_b = 1.8 \times 10^{-5}$. Also calculate the pH of the base.

Initial			
Change			
Equilibrium			

Weak Acid:

3. Calculate the pH of a 0.20 M solution of HCN that has a Ka = 4.9×10^{-10}

Initial			
Change			
Equilibrium			

b) What is the percent of ionization of this acid?