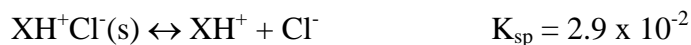


Problem Set #3
Due 3/1/11

- a. Calculate the pH of a 0.492 M solution of aspirin. The K_a for aspirin is 3.24×10^{-4} .
b. Calculate the fraction of aspirin in each state (HA, A^-) for the solution in part (a).
- Find the solubility (mol/L) of the new compound XH^+Cl^- in the blood. Assume blood pH is 7.40.



- A 4.50×10^{-2} M solution of Minoxidil (HM) has a pH of 2.985. Calculate the pK_a of Minoxidil.
- Find the pH of a 0.48 M solution of atropine. $K_b = 4.50 \times 10^{-5}$
- Which is a stronger acid:
 - Ephedrine $K_b = 2.30 \times 10^{-5}$
 - Lidocaine $K_a = 1.38 \times 10^{-8}$
- Harris Chapter 8, Problem 20

Suggested/Review Problems:

- Harris Chapter 6, Problem 28
- Harris Chapter 6, Problem 34
- Harris Chapter 6, Problem 35
- Harris Chapter 6, Problem 46
- Harris Chapter 8, Problem 2
- Harris Chapter 8, Problem 6
- Harris Chapter 8, Problem 12
- Harris Chapter 8, Problem 13
- Harris Chapter 8, Problem 19
- Harris Chapter 8, Problem 22