Chemistry 112

3) If a 0.05 M solution of a weak acid produces a pH of 5.9, What is K_a for this weak acid?

7) Calculate the molar solubility of barium fluoride (BaF_2) in water.
$K_{sp} = 1.6 \times 10^{-6}$.
Calculate the molar solubility of this compound in an aqueous solution that is 0.2 M NaF (sodium fluoride).

10) What is the pH of the following solutions?
a) 0.25 M HNO_3 b) 0.17 M $Ba(OH)_2$

16) What is the concentration of Ca^{2+} ion remaining after $CaCO_3$ precipitates when 50.0 ml of 0.10 M $CaCl_2$ is added to 50.0 ml of 0.10 M Na_2CO_3? K_{sp} for $CaCO_3$ is 3.8×10^{-9}.

What is the pH of a 0.15 M solution of NH_3? Kb = 1.78×10^{-5}

What is the PH of a 0.15 M solution of NH_4^+?