Unit 3 and 4 review… Ksp, Ka, Kb

1. Does a precipitate form when 0.050 L of 0.50 M Ca(NO3)2 is mixed with 0.100 L of 0.12 M NaF? Ksp of CaF2 is 3.2 x 10-11
2. Use the Boric acid and its conjugate base to prove that Ka x Kb = kw.
3. Consider the weak base Dimehtylamine (CH3)2NH. What is the pH of 3.0M dimethylamine? Kb = 5.9 x 10 -4. Assume that the dissociation is the only source of [OH-] and the amount of Dimethylamine that dissociates is small enough that it can be ignored to avoid the quadratic
4. Will a solution of NaHSO3 be acidic or basic? Show all calculations that lead to your conclusion.