## Homework \#2

## 1. Acid/Base Equilibria I: algebraic method

Determine the complete solution composition of the following systems (all are added to 1 liter of pure water), based on the governing equations. Make one or more simplifying assumptions, then solve the system of equations based on those assumptions, and check the assumptions.
a. $5 \times 10^{-3}$ moles HOCl
b. $5 \times 10^{-3}$ moles NaCN
c. $5 \times 10^{-8}$ moles HCl
d. $1 \times 10^{-3}$ moles $\mathrm{HAc}+5 \times 10^{-4}$ moles NaAc

