1. The $K_{sp}$ for Ag$_2$SO$_3$ is $1.5 \times 10^{-14}$. Calculate the solubility of Ag$_2$SO$_3$ a) in pure water and b) in 0.01 M RbSO$_3$?

2. Will Ag$_2$SO$_4$ ($K_{sp} = 1.5 \times 10^{-5}$) precipitate when 100 mL of 0.050 M AgNO$_3$ is mixed with 10 mL of 5.0 $\times$ $10^{-2}$ M Na$_2$SO$_4$ solution?

3. (a) What is the charge of the complex formed by a platinum (II) metal ion surrounded by two ammonia molecules and two bromide ions? (b) Write a formula for this complex?

4. (a) What is the difference between a monodentate ligand and a bidentate ligand? (b) how many bidentate ligands are necessary to fill the coordination sphere of a six coordinate complex?

5. Indicate the coordination number of the metal and the oxidation number of the metal in each of the following complexes: (a) K$_4$[Fe(CN)$_6$], (b) [Co(en)$_2$(C$_2$O$_4$)]$^+$, (c) [Ni(CN)$_3$]$^{3-}$. 