82)  Calculate the solubility of each of the following compounds in moles per liter.  Ignore any acid-base properties.

   a.  $PbI_2$          $K_{sp} = 1.4 \times 10^{-8}$

   b.  $CdCO_3$          $K_{sp} = 5.2 \times 10^{-12}$

   c.  $Sr_3(PO_4)_2$          $K_{sp} = 1 \times 10^{-31}$

90)  The $K_{sp}$ for silver sulfate, $Ag_2SO_4$, is $1.2 \times 10^{-5}$.  Calculate the solubility of silver sulfate in each of the following:

   a.  water

   b.  $0.10\ M\ AgNO_3$

   c.  $0.20\ M\ K_2SO_4$

97)  Will a precipitate form when 75.0 mL of $0.020\ M\ BaCl_2$ and 125 mL of $0.040\ M\ Na_2SO_4$ are mixed together?

98)  Will a precipitate form when 100.0 mL of $4.0 \times 10^{-4}\ M\ Mg(NO_3)_2$ is added to 100.0 mL of $2.0 \times 10^{-4}\ M$ NaOH?