Mr. Bracken
AP Chemistry

Name _____
Period _____

Introductory Ksp Worksheet #0.5 (2010)

1. Complete the following chart.

Compound	**Solubility Equilibrium Reaction**	**Ksp Expression**
NaCl		Ksp =
$CaSO_4$		Ksp =
SrF_2		Ksp =
$BaCO_3$		Ksp =

2. We can think of Ksp as an indication of a "solubility limit" for each compound.

<u>Would a precipitate be observed if the following were mixed</u>?

120 mL of 0.010 M $CaCl_2$ and 650 mL of 0.010 M Na_2SO_4

3. Would a precipitate be observed if the following were mixed?
   75 mL of 0.010 M $AgNO_3$ and 75 mL of 0.010 M NaCl

4. Would a precipitate be observed if the following were mixed?
   100 mL of 0.10 M $CaCl_2$ and 50 mL of 0.10 M KF

5. What is the maximum concentration of strontium ion (Sr^{2+}) that can be present in a 0.012 M K_2CO_3 solution without observing a precipitate of $SrCO_3$?

6. What is the maximum concentration of chloride ion (Cl^{1-}) that can be present in a 0.10 M $AgNO_3$ solution without observing a precipitate of AgCl?