Experiment 3 Part 1 Answers:

	Reaction:	Net Ionic Equation
a)	Sodium chloride and ammonium nitrate:	No RXN
b)	Sodium chloride and silver nitrate:	$Ag^+(aq) + Cl^-(aq) \rightarrow AgCl(s)$
c)	Sodium chloride and barium nitrate:	No RXN
d)	Sodium sulfate and ammonium nitrate:	No RXN
e)	Sodium sulfate and silver nitrate:	$2Ag^+(aq) + SO_4^{2-}(aq) \rightarrow Ag_2SO_4(s)$
f)	Sodium sulfate and barium nitrate:	$Ba^{2+}(aq) + SO_4^{2-}(aq) \rightarrow BaSO_4(s)$
g)	Sodium hydroxide and ammonium nitrate:	$OH^-(aq) + NH_4^+(aq) \rightarrow NH_3(aq) + H_2O(l)$ *(weak acid RXN)*
h)	Sodium hydroxide and silver nitrate:	$Ag^+(aq) + OH^-(aq) \rightarrow AgOH(s)$
i)	Sodium hydroxide and barium nitrate:	No RXN *(ss considered soluble)*
j)	Sodium carbonate and ammonium nitrate:	No RXN ($NH_4^+(aq)$ is a weak acid
k)	Sodium carbonate and silver nitrate:	$2Ag^+(aq) + CO_3^{2-}(aq) \rightarrow Ag_2CO_3(s)$

b. Tabulate your expected results in the chart below based on the solubility rules covered in you text and lecture. Place a "P" in the box if you expect a precipitate to form and "NR" if you do not think a reaction will occur. Note "SS" as well if any of the reactions generate a slightly soluble product.

	NH_4NO_3	$AgNO_3$	$Ba(NO_3)_2$
NaCl	NR	P AgCl(s)	NR
Na_2SO_4	NR	NR (ss)	P $BaSO_4$(s)
NaOH	NR	P AgOH(s)	NR (ss)
Na_2CO_3	NR (NH_4^+ is too weak for CO_2(g) to form)	P Ag_2CO_3(s)	P $BaCO_3$(s)