

Answers: Using the Solubility Chart

Name: _____

- 1) Determine whether the following pairs of ions will be soluble or insoluble when they are mixed together.

Cation	Anion	Soluble or insoluble?
Ag^+	Cl^-	insoluble
Ca^{2+}	OH^-	insoluble
Na^+	CO_3^{2-}	soluble
Zn^{2+}	Br^-	soluble
Mg^{2+}	SO_4^{2-}	soluble
Ba^{2+}	OH^-	soluble
Cu^{2+}	Cl^-	soluble
K^+	SO_4^{2-}	soluble
Al^{3+}	Br^-	soluble
Li^+	PO_4^{3-}	soluble
Mg^{2+}	S^{2-}	soluble
Ag^+	NO_3^-	soluble
Zn^{2+}	S^{2-}	insoluble
Pb^{2+}	OH^-	insoluble

- 2) Using the solubility chart, determine whether the following compounds will dissolve (soluble) or not dissolve well (insoluble) in water.

Compound	Dissolve/not dissolve?
Zinc hydroxide	not dissolve
Calcium chloride	dissolve
Lithium nitrate	dissolve
Silver carbonate	not dissolve
Magnesium carbonate	not dissolve
Copper (II) sulfate	dissolve

- 3) Precipitates form when, in a double displacement reaction, a compound with low solubility (insoluble) is formed. Using the solubility chart, determine whether the following are likely to form a precipitate when they are a product of a double displacement reaction.

Compound	Precipitate – yes/no?
Ag_2S	yes
Li_3PO_4	no
CuCO_3	yes
SnCl_2	no
MgCO_3	yes
AgNO_3	no
NaCl	no
BaSO_4	yes