Name: _____

Solubility and Precipitation Reactions

1. On the basis of solubility rules indicate if the substance is (aq) soluble or (ppt) insoluble in water:

a.) _____ Na_2SO_4
b.) _____ ammonium phosphate
c.) _____ Cu_3PO_4
d.) _____ lead(II) sulfate
e.) _____ AgOH
f.) _____ mercury(I) chloride
g.) _____ AgCl
h.) _____ magnesium sulfate
i.) _____ Fe_2S_3
j.) _____ iron(II) carbonate
k.) _____ $Ni(OH)_2$
l.) _____ mercury(II) nitrate
m.) _____ $BaSO_4$
n.) _____ zinc acetate
o.) _____ $Cr(NO_3)_6$
p.) _____ lead(II) chloride
q.) _____ Li_2CO_3
r.) _____ osmium(VIII) nitrate
s.) _____ $Al(OH)_3$
t.) _____ ammonium sulfide

2. Write the products of dissociation for the following salts. If insoluble write *none*.

a.) $CuSO_4$ →

b.) HCl →

c.) $NH_4C_2H_3O_2$ →

d.) Na_3PO_4 →

e.) $Hg_2(OH)_2$ →

f.) potassium sulfide →

g.) lead(II) sulfate →

h.) silver chloride →

i.) sodium carbonate →

j.) chromium(III) nitrate →

3. Complete the word equation then write a balanced chemical equation that includes phase notation. Circle the precipitate. If no reaction takes place write *No Reaction*

a.) Sodium chloride and silver nitrate →

b.) Phosphoric acid and copper(II) sulfate →

c.) sodium chloride and magnesium bromide →

d.) sodium sulfide and iron(III) nitrate →

e.) ammonium phosphate and tin(II) nitrate →

f.) lead(II) nitrate and sulfuric acid →

g.) silver acetate and sodium sulfide →

h.) ammonium carbonate and sodium phosphate →

i.) ammonium phosphate and lead(II) acetate →