

Name: _____

Homework 10

Soluble? Insoluble? And Writing Precipitation Reactions

1. For each ionic compound below, determine if it would be soluble (aq) or insoluble (s) in water. Use your solubility rules and also state WHICH rule (1-8) you used to make your decision

a. NaOH _____

f. AgBr _____

b. NaBr _____

g. NaI _____

c. AgNO₃ _____h. H₃PO₄ _____d. Pb(NO₃)₂ _____i. Zn₃(PO₄)₂ _____e. PbI₂ _____j. (NH₄)₃PO₄ _____

2. Name the ionic compounds – don't forget about the species that need roman numerals in their names!!

a. NaOH _____

e. PbI₂ _____

b. NaBr _____

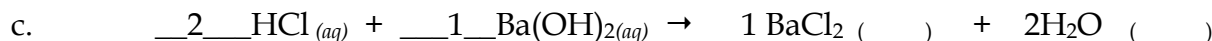
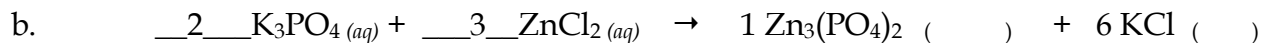
f. AgBr _____

c. AgNO₃ _____

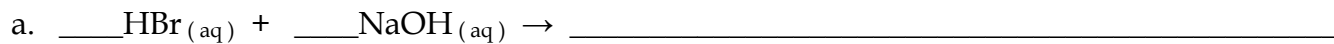
g. NaI _____

d. Pb(NO₃)₂ _____h. (NH₄)₃PO₄ _____

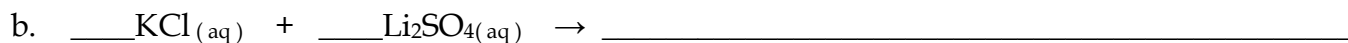
3. Given the following balanced equations, use solubility rules (and common sense!) and fill in the phases for the products given in each reaction



4. Given the following reactions, predict the products using your knowledge of DR reactions and of the solubility rules, write the ions and their charges underneath the reactants, then pair the ions by switching them to make your products. Do not forget to show phases!



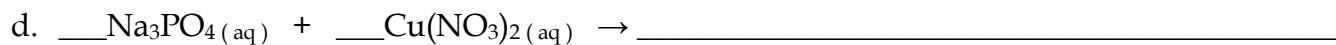
Ions: $\underline{\hspace{1cm}} \underline{\hspace{1cm}} \underline{\hspace{1cm}} \underline{\hspace{1cm}}$ new ion pairs: $\underline{\hspace{1cm}} \underline{\hspace{1cm}} \underline{\hspace{1cm}} \underline{\hspace{1cm}}$



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