

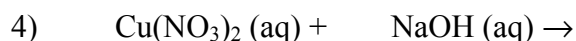
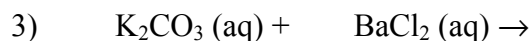
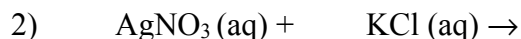
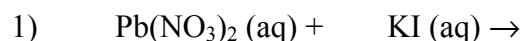
WKS
Double Replacement Reaction Products

NAME _____
Period _____ **Date** _____

Analysis of Double Replacement Reactions

- (a) Switch ions (remember $AX + BY \rightarrow AY + BX$).
 - Leave all subscripts indicating the **number of each ion** behind (but keep subscripts on polyatomic ion formulas, e.g. NO_3^- or SO_4^{2-}).
- (b) Write in all charges on ions in the reactants
- (c) Write in charges (they will be unchanged) on product ions.
- (d) Determine correct formulas (criss-cross charges to make them neutral!!) and remove charges from final compounds.
- (e) Balance the equation (only change **coefficients** now!).
- (f) Determine which product is soluble and which is insoluble. Label with (aq) for soluble and (s) for insoluble. There will usually be one of each in the products.
 - When an **INSOLUBLE** compound is formed, it is a **SOLID**. Thus, write (s).
 - When a **SOLUBLE** compound is formed, it will be dissolved in the water. Thus, write (aq).

For the following skeleton equations, determine the correct product formulas, then balance and indicate which product is soluble (aq) and which is the insoluble precipitate (s).



For the following word equations, determine the correct reactant formulas. Then determine the product formulas, balance and indicate which product is soluble (aq) and which is the insoluble precipitate (s).

5) Sodium carbonate solution is mixed with iron(III) nitrate solution.

6) A solution of copper(II) nitrate reacts with a solution of ammonium iodide.

7) Lead(II) chlorate solution combines with lithium sulfate solution.

8) Aqueous sodium phosphate reacts with aqueous vanadium(V) nitrate.