

40

Name: CALVIN  
Date:  
Hour:

### AP Chemistry Ch.4 Quiz

FORMULAS MUST BE CORRECT!!!  
Subscripts balance formulas! Coefficients balance equations!  
Both sides of the arrow must have the same number of each type of atom.  
Save Hydrogen and Oxygen for last (especially combustion!)  
FORMULAS MUST BE CORRECT!!!

To the LEFT of each letter ~ indicate the reaction TYPE.  
(i.e. Combination/Synthesis, Decomp, SR, DR, Combustion)

1)

a) Strontium + Chlorine → Strontium Chloride

3pts  
Synth



b) Lithium + Barium Nitrate → Barium + Lithium Nitrate

SR



c) 1 Mg + 2 HCl → 1 MgCl<sub>2</sub> + 1 H<sub>2</sub>

SR

d) 1 C<sub>3</sub>H<sub>8</sub> + 5 O<sub>2</sub> → 4 H<sub>2</sub>O + 3 CO<sub>2</sub>

Combustion

e) 2 NaNO<sub>3</sub> + 1 MgCl<sub>2</sub> → 2 NaCl + 1 Mg(NO<sub>3</sub>)<sub>2</sub>

DR

f) 4 Fe + 3 O<sub>2</sub> → 2 Fe<sub>2</sub>O<sub>3</sub>

Combustion/Synth.

g) 1 Al<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> + 6 Li(NO<sub>3</sub>) → 2 Al(NO<sub>3</sub>)<sub>3</sub> + 3 Li<sub>2</sub>(SO<sub>4</sub>)

DR

2) Name for the insoluble solid that results when two aqueous solutions are mixed

1pt

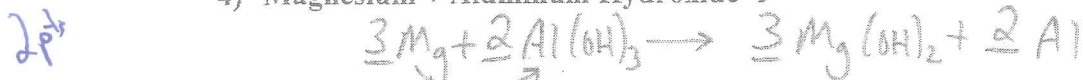
precipitate

3) Ions that do not take place in a reaction are called spectator ions

1pt

Complete the following reactions that will occur based on activity series. (If no reaction write "NR")

4) Magnesium + Aluminum Hydroxide  $\rightarrow$



5) Calcium Bromide + Aluminum  $\rightarrow$



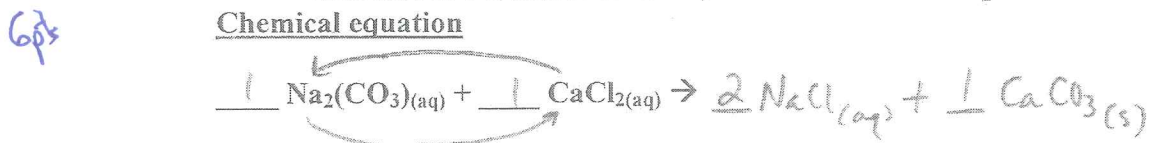
6) Fluorine + Potassium Chloride  $\rightarrow$



Complete net ionic equation:

7) Will a precipitate form if solutions of Sodium Carbonate and Calcium Chloride are combined? Is so, write the net ionic equation for the rxn.

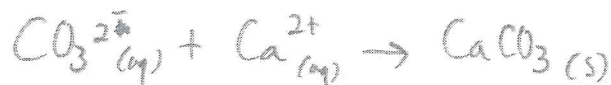
Chemical equation



Overall ionic equation



Net ionic equation



8) Will a precipitate form if solutions of Copper (II) Chloride and Ammonium Phosphate are combined? Is so, write the net ionic equation for the rxn.

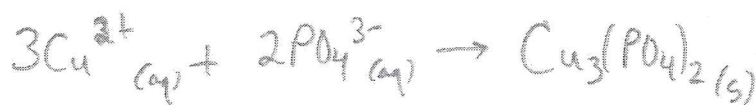
Chemical equation



Overall ionic equation



Net ionic equation



Go Vikings!!!