## Worksheet 4b.6b - Double Replacement Predictions

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5. Potassium sulfite is reacted with hydrobromic acid.  Overall Equation:
_lonic_Equation:_
Net-Ionic Equation:
6. Potassium sulfide is reacted with nitric acid.  Overall Equation:
<del>lonic Equation:</del>
Net-Ionic Equation:
7. Ammonium iodide is mixed with magnesium sulfate.  Overall Equation:
- <del>Jonic Equation: -</del>
Net-Ionic Equation:
8. Solid titanium (IV) carbonate is added to hydrochloric acid. Overall Equation:
<del>Jonic Equation:</del>
Net-Ionic Equation:
9. Solid calcium sulfite is mixed with acetic acid.  Overall Equation:
<del>lonic Equation:</del>
Net-Ionic Equation:
10. Strontium hydroxide is added to ammonium sulfide.  Overall Equation:
lonic Equation:
Net-Ionic Equation:

### Worksheet 4b.8 - Mixed Predictions

NAME	

Use the General Cases to predict the products of each reaction. Balance each equation when done. Identify each reaction type in the blank at the right.

#### **General Case:**

Synthesis:

$$A + B \rightarrow AB$$

Decomposition:

$$AB \rightarrow A + B$$

Single Replacement:

$$AX + B \rightarrow BX + A$$

Double Replacement:

$$AX + BY \rightarrow BX + AY$$

Combustion:

$$C_xH_y + O_2 \rightarrow CO_2 + H_2O$$

#### **REACTION:**

$$C_5H_{12} + C_2 \rightarrow$$

$$C_4H_{10} + C_2 \rightarrow$$

$$Al_2O_3 \rightarrow$$

$$Al + _l_2 \rightarrow$$

$$_{\text{N}}^{\text{Zn}(OH)_2} + _{\text{N}_2}^{\text{Al}_2(CO_3)_3} \rightarrow$$

# Worksheet 4b.9 - Mixed Predictions

NAME	

Use the General Cases to predict the products of each reaction. Balance each equation when done. Identify each reaction type in the blank at the right.

### **General Case:**

Synthesis:

 $A + B \rightarrow AB$ 

Decomposition:

 $AB \rightarrow A + B$ 

Single Replacement:

 $AX + B \rightarrow BX + A$ 

Double Replacement:

 $AX + BY \rightarrow BX + AY$ 

Combustion:

 $C_xH_y + O_2 \rightarrow CO_2 + H_2O$ 

### **REACTION:**

\_\_\_CuCl₂ + \_\_\_Na₃PO₄ →

 $C_{12}H_{26} + C_{2} \rightarrow$ 

\_\_\_FeCl₃ →

 $K_2SO_4 + Li \rightarrow$ 

 $Na + O<sub>2</sub> \rightarrow$ 

 $_{C_3H_8} + _{O_2} \rightarrow$ 

\_\_\_KMnO₄ + \_\_\_Li →

 $\_\_Na_3P + \_\_Ba(OH)_2 \rightarrow$ 

 $_{-}H_2O \rightarrow$ 

 $\_$ HCl +  $\_$ Ca(OH)<sub>2</sub>  $\rightarrow$ 

### Worksheet 4b.10 - Mixed Predictions

NAME	

Predict the products of each reaction. Balance each equation when done. Identify each reaction type in the blank at the right.

#### REACTION:

Mg +O <sub>2</sub>	$\rightarrow$	

$$\_\_Na + \_\_O_2 \rightarrow$$

$$\underline{\hspace{1cm}} Pb(SO_4)_2 + \underline{\hspace{1cm}} Al(C_2H_3O_2)_3 \rightarrow \underline{\hspace{1cm}}$$

$$C_4H_{10} + C_2 \rightarrow$$

$$_H_3PO_4$$
 +  $_MgCO_3$  →

$$_{--}$$
PtO<sub>2</sub> +  $_{--}$ H<sub>2</sub>  $\rightarrow$ 

$$\__MgSO_4·7H_2O$$
 →

# Worksheet 4b.11 - Mixed Predictions

NAME	

Predict the products of each reaction. Balance each equation when done. Identify each reaction type in the blank at the right.

#### **REACTION:**

$\_\_Sr + \_\_O_2 \rightarrow$	
Na +H₂O →	
Zn +HCl →	
ICI →	
Fe(OH) <sub>3</sub> +H <sub>2</sub> SO <sub>4</sub> →	
$C_6H_{14} + C_0 \rightarrow$	
Au(OH) <sub>3</sub> +Na <sub>2</sub> CO <sub>3</sub> →	
SrCl₂ +NaOH →	
OCl <sub>2</sub> ->	
AgNO <sub>3</sub> +H <sub>2</sub> SO <sub>4</sub> →	
$_{-}$ Zn + $_{-}$ O <sub>2</sub> $\rightarrow$	
Mg(OH) <sub>2</sub> +NaF →	
$_{C_{30}H_{62}} + _{O_{2}} \rightarrow$	
$\Mg(NO_3)_2 + \H_2O \rightarrow$	
$\Au_2S_3 \rightarrow$	
$_{Ti}(MnO_4)_4 +Fe_2O_3 \rightarrow$	
$\MnF_2 + \O_2 \rightarrow$	
$CO_{2} \rightarrow$	