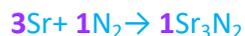
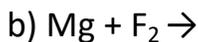
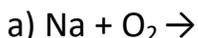
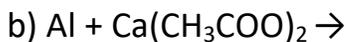
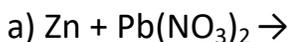


Predicting Products Worksheet

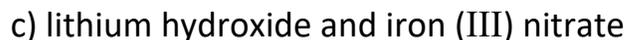
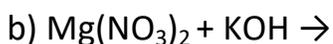
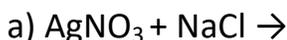
1) Complete and balance the following **synthesis** reactions



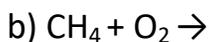
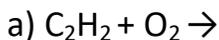
2) Complete and balance the following **single displacement** reactions



3) Complete and balance the following **double displacement** reactions



4) Complete and balance the following **combustion** reactions



5) Identify the type of reaction. Then, write the full chemical equation and balance it.

a) zinc and sulfur yield



b) silver nitrate and potassium iodide yield



c) zinc and hydrochloric acid yield



d) $\text{C}_7\text{H}_8 + \text{O}_2 \rightarrow$



6) Based on the activity series, which element within each pair is more likely to replace the other in a compound?

a) K and Na

K replaces Na

c) Cl and F

F replaces Cl

e) Au and Ag

Ag replaces Au

b) Al and Ni

Al replaces Ni

d) Bi and Cr

Cr replaces Bi

f) Cl and I

Cl replaces I

7) Using the activity series, predict whether each of the possible reactions listed below will occur. For the reactions that will occur, write the products and balance the equation:

a) $\text{Ni} + \text{CuCl}_2 \rightarrow$ **yes**



b) $\text{Zn} + \text{Pb}(\text{NO}_3)_2 \rightarrow$ **yes**



c) $\text{Cl}_2 + \text{NaI} \rightarrow$ **yes**



d) $\text{Cu} + \text{FeSO}_4 \rightarrow$ **No reaction**

e) $\text{Ba}(s) + \text{H}_2\text{O}(l) \rightarrow$ **yes**



f) $\text{Al} + \text{CaO} \rightarrow$ **No reaction**

g) $\text{Pb} + \text{ZnCl}_2 \rightarrow$ **Noreaction**

h) $\text{Ni} + \text{H}_2\text{O} \rightarrow$ **No reaction**

i) $\text{Br}_2 + \text{KI} \rightarrow$ **yes**



j) $\text{Au} + \text{HCl} \rightarrow$ **No reaction**

k) $\text{Cd} + \text{HCl} \rightarrow$ **yes**



l) $\text{Mg} + \text{Co}(\text{NO}_3)_2 \rightarrow$ **yes**

