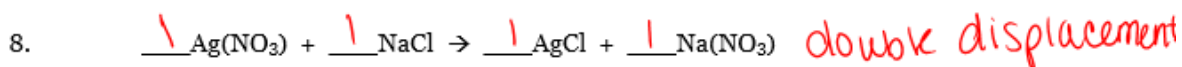
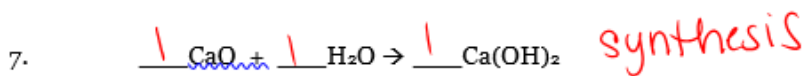
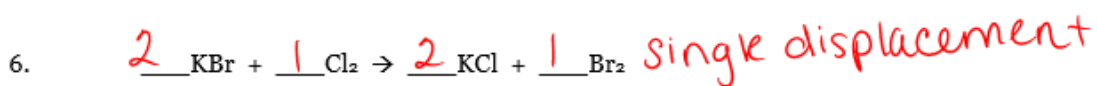
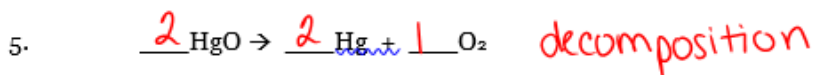
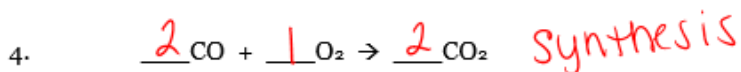
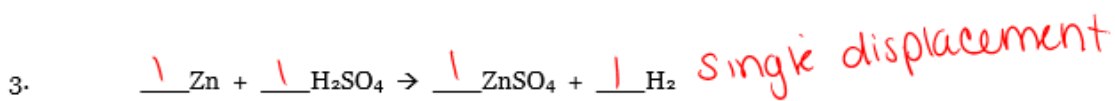
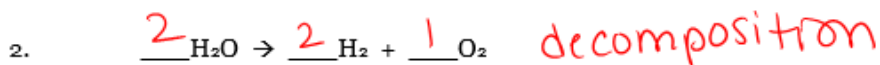
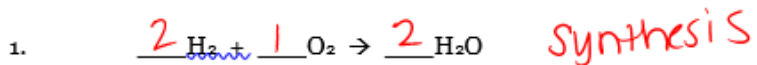


## Worksheet #1

### Classification and Balancing of Chemical Reactions

Balance the following equations.

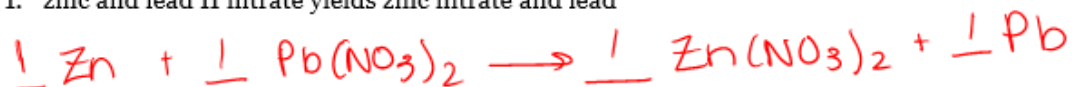


## Worksheet #2

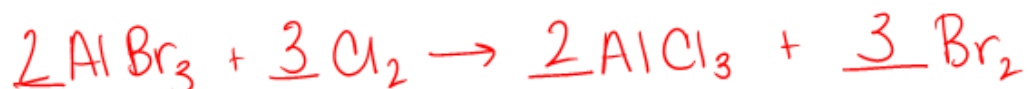
### Chemical Reactions with Balancing

Write the word equations below as chemical equations and balance. Identify the reaction type.

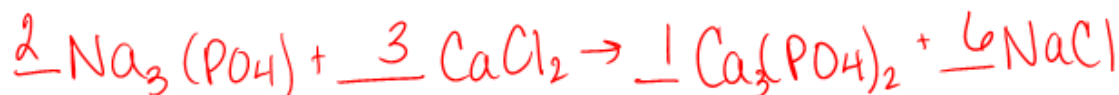
1. zinc and lead II nitrate yields zinc nitrate and lead



2. aluminum bromide and chlorine yields aluminum chloride and bromine



3. sodium phosphate and calcium chloride yields calcium phosphate and sodium chloride



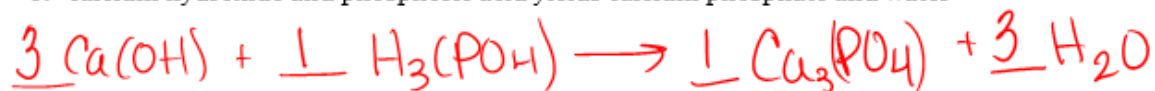
4. potassium chlorate when heated yields potassium chloride and oxygen



5. aluminum and hydrochloric acid yields aluminum chloride and hydrogen



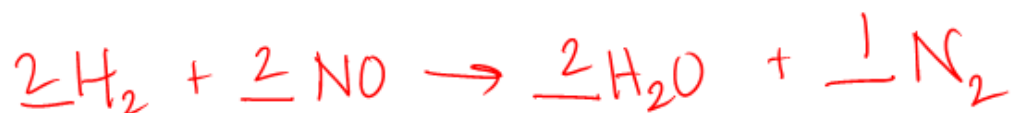
6. calcium hydroxide and phosphoric acid yields calcium phosphate and water



7. calcium and oxygen yields calcium oxide



8. hydrogen and nitrogen monoxide yields water and nitrogen



9. sulfur and oxygen yields sulfur trioxide



10. calcium carbonate yields calcium oxide and carbon dioxide



## Worksheet #3

### More Balancing

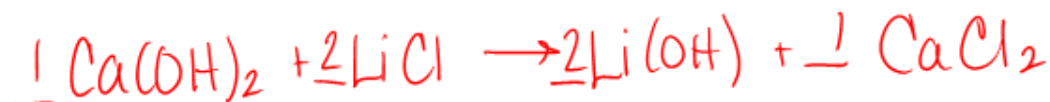
Write and balance the following equations. Identify the reaction type.

1. magnesium and hydrogen chloride produce hydrogen and magnesium chloride



single displacement

2. calcium hydroxide and lithium chloride produce lithium hydroxide and calcium chloride



double displacement

3. decompose copper (II) oxide into copper and oxygen



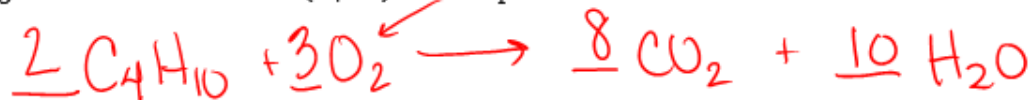
decomposition

4. aluminum and iron (III) oxide produce iron and aluminum oxide



single displacement

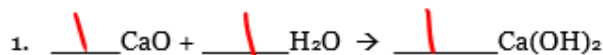
5. combustion of butane ( $\text{C}_4\text{H}_{10}$ ) in air to produce carbon dioxide and water



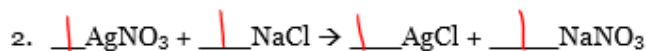
Combustion

Worksheet #4  
Types of Reactions, Balancing and Predicting Products

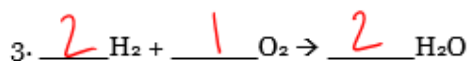
Balance the following equations and also tell what type they are: single displacement, double displacement, synthesis, decomposition or combustion.



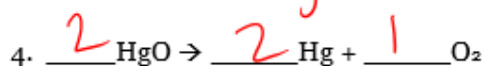
Reaction type: synthesis



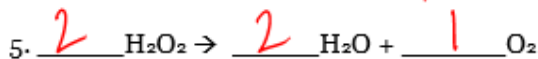
Reaction type: double displacement



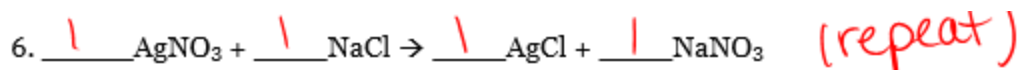
Reaction type: Synthesis



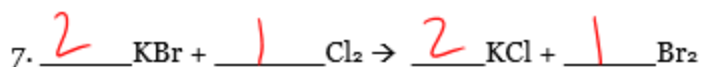
Reaction type: decomposition



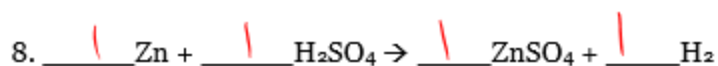
Reaction type: decomposition



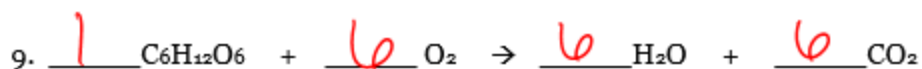
Reaction type: double displacement



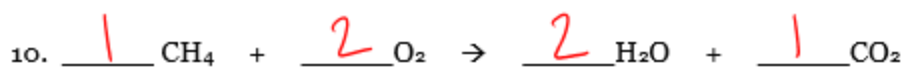
Reaction type: single displacement



Reaction type: single displacement



Reaction type: combustion



Reaction type: combustion