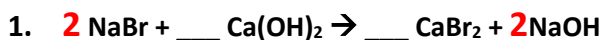


SNC2D Types of Chemical Reactions and Balancing Worksheet

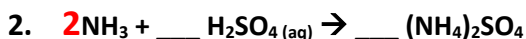
Ms. Kueh

Part 1: Balance the following reactions and indicate the reaction type represented (remember your choices are: synthesis, decomposition, single displacement, double displacement).



Sodium bromide + calcium hydroxide \rightarrow calcium bromide + sodium hydroxide

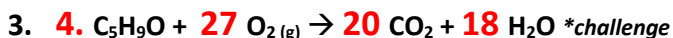
Type: **double displacement**



Nitrogen hydride + hydrogen sulphate \rightarrow ammonia sulphate

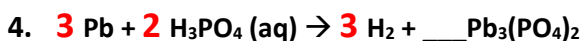
(ammonia)

Type: **synthesis**



4-hydroxy-2-methylenebutyl + oxygen gas \rightarrow carbon dioxide + water + energy

Type: **combustion**



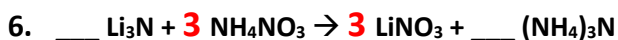
Lead + hydrogen phosphate \rightarrow hydrogen gas + lead (II) phosphate

Type: **single displacement**



Sodium hydroxide \rightarrow sodium + oxygen gas + hydrogen gas

Type: **decomposition**



Lithium nitride + ammonium nitrate \rightarrow lithium nitrate + ammonium nitride

Type: **double displacement**



Hydrogen bromide + aluminum hydroxide \rightarrow water + aluminum bromide

Type: **double displacement**



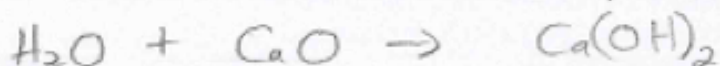
Lithium + nitrogen gas \rightarrow lithium nitride

Type: **synthesis**

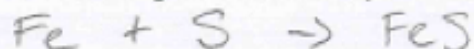
Part 2 – Word Equations to Balanced Chemical Equations

- Identify the type of reaction.
- Write the **skeleton** equation
- Balance the equation

1. Water added to calcium oxide forms calcium hydroxide in a synthesis reaction.



2. Iron reacting with sulfur to produce iron (II) sulfide. Type: Synthesis



3. Lead reacting with oxygen produces lead (II) oxide. Type: Synthesis/Combustion ○

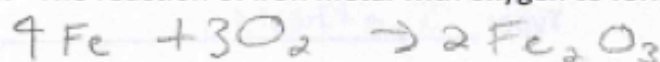


4. The reaction of copper (II) oxide with hydrogen to form copper metal and water.



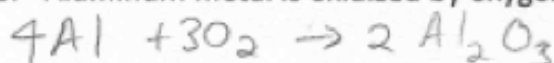
single
Displacement

5. The reaction of iron metal with oxygen to form iron (III) oxide.



Synthesis/combustion

6. Aluminum metal is oxidized by oxygen (from the air) rust in a synthesis reaction.



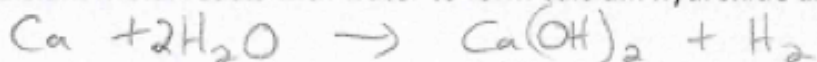
Synthesis/combustion

7. Sodium oxide reacts with carbon dioxide in a synthesis reaction to form sodium carbonate.



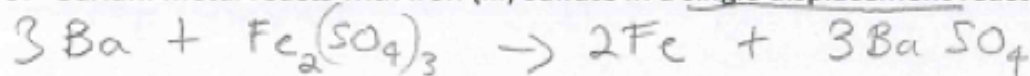
Synthesis

8. Calcium metal reacts with water to form calcium hydroxide and hydrogen gas.



single displacement

9. Barium metal reacts with iron (III) sulfate in a single displacement reaction.



10. Barium chloride reacts with sodium sulfate in a double displacement reaction.

