**For each reaction:**

a) Classify as synthesis (S), decomposition (D), combustion (C), single replacement (SR), precipitation (P) or acid-base (AB)

b) Write a balanced equation below the word equation. You may omit phases.

# Type of Reaction Balanced Equation

1. lithium + oxygen 🡪 lithium oxide
2. iron + sulfur 🡪 iron (III) sulfide
3. barium chloride + sodium sulfide 🡪 sodium chloride + barium sulfide
4. calcium carbonate 🡪 calcium oxide + carbon dioxide
5. aluminum bromide + fluorine 🡪 aluminum + bromine
6. zinc + hydrobromic acid 🡪 zinc bromide + hydrogen
7. silver nitrate + iron (III) sulfate 🡪 silver sulfate + iron (III) nitrate
8. methane + oxygen 🡪 carbon dioxide + water
9. hydrobromic acid + sodium hydroxide 🡪 water + sodium bromide
10. ethanol + oxygen 🡪 carbon dioxide + water

**For each reaction :**

a) Classify as synthesis (S), decomposition (D), combustion (C), single replacement (SR), precipitation (P) or acid-base (AB)

b) Complete the word equation.

c) Write a balanced equation below the word equation. You may omit phases.

1. silver oxide 🡪
2. potassium + sulfur 🡪
3. acetic acid + potassium hydroxide 🡪
4. aluminum sulfate + barium nitrate 🡪
5. magnesium + hydrochloric acid🡪
6. butane + oxygen 🡪