EXTRA PRACTICE: Balancing Equations

Use coefficients to balance each reaction below.

1. ____ HNO₃ (l)
$$\rightarrow$$
 ____ N₂O₅ (s) + ___ H₂O (l)

2. ____ BaCl₂ (aq) + ____ Na₂SO₄ (aq)
$$\rightarrow$$
 ____ BaSO₄ (s) + ___ NaCl (aq)

3. ____ Al (s) + ___ Cl₂ (g)
$$\rightarrow$$
 ____ AlCl₃

4. ____ KClO₃ (s)
$$\rightarrow$$
 ____ KCl (s) + ___ O₂ (g)

5. ____ NaCl (s) + ____ F₂ (g)
$$\rightarrow$$
 ____ NaF (s) + ____ Cl₂ (g)

6. ____
$$CH_4(g) +$$
 ____ $O_2(g) \rightarrow$ ___ $CO_2(g) +$ ___ $H_2O(l)$

8. ____
$$HCl(g) +$$
 ____ $CaCO_3(aq) \rightarrow$ ____ $CaCl_2(aq) +$ ___ $H_2O(l) +$ ____ $CO_2(g)$

For each word equation below, circle pure elements, box ionic compounds, underline covalent compounds, and highlight acids. Then write and balance the chemical equations.

1. Sulfur trioxide + water → sulfuric acid

2. Lead (II) nitrate + sodium iodide → lead (II) iodide + sodium nitrate

3. Calcium fluoride + sulfuric acid → calcium sulfate and hydrofluoric acid

4. Zinc sulfide + oxygen \rightarrow zinc oxide + sulfur.

5. During photosynthesis, glucose (C₆H₁₂O₆) and oxygen form from carbon dioxide and water

6. Potassium oxide reacts with water to produce potassium hydroxide.