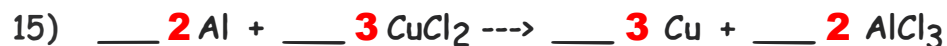
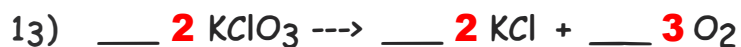
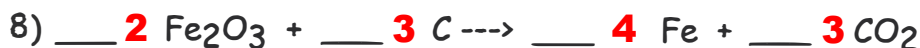
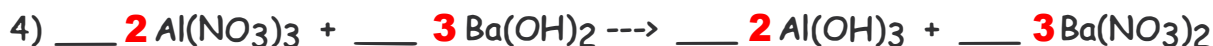


Part A: Balancing Chemical Equations



Part B: Identifying the Type of Reaction

For each reaction below, identify the type of reaction.

- 1) sodium + bromine $\rightarrow$ sodium bromide **synthesis**
- 2) calcium chloride $\rightarrow$ calcium + chlorine **decomposition**
- 3) ethane (C_2H_6) + oxygen $\rightarrow$ carbon dioxide + water **combustion**
- 4) aluminum + sulfur $\rightarrow$ aluminum sulfide **synthesis**
- 5) barium chloride + copper (II) sulfate $\rightarrow$ barium sulfate + copper (II) chloride **DR**
- 6) copper (II) carbonate $\rightarrow$ copper (II) oxide + carbon dioxide **decomposition**
- 7) nickel + lead (IV) nitrate $\rightarrow$ lead + nickel (II) nitrate **single replacement**
- 8) propane (C_3H_8) + oxygen $\rightarrow$ carbon dioxide + water **combustion**
- 9) diphosphorous pentoxide + water $\rightarrow$ phosphoric acid **synthesis**
- 10) mercury (II) oxide $\rightarrow$ mercury + oxygen **decomposition**
- 11) gold + magnesium bromide $\rightarrow$ gold (III) bromide + magnesium **SR**
- 12) hydrochloric acid + sodium hydroxide $\rightarrow$ sodium chloride + water **Neut**
- 13) potassium oxide + water $\rightarrow$ potassium hydroxide **synthesis**
- 14) magnesium chlorate $\rightarrow$ magnesium chloride + oxygen **decomposition**
- 15) butane (C_4H_{10}) + oxygen $\rightarrow$ carbon dioxide + water **combustion**

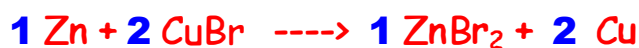
Part C: Predicting the Products

Predict the products for each reaction below. Then write the balanced chemical equation.

1) iron (II) nitrate + potassium hydroxide ----> iron II hydroxide + potassium nitrate



2) zinc + copper (I) bromide ----> zinc bromide + copper



3) hydrogen + oxygen ----> water



4) water + sulfur trioxide ----> sulfuric acid



5) sulfuric acid + potassium hydroxide ----> potassium sulfate + water



6) barium carbonate ----> barium oxide + carbon dioxide



7) phosphorous pentachloride ----> phosphorus trichloride + chlorine gas



8) silver nitrate + calcium bromide ----> silver bromide + calcium nitrate

