

## CLASSIFYING CHEMICAL REACTIONS



Part II

Classify the following reactions as synthesis, decomposition, single replacement or double replacement.

ANSWERS

- |   |                    |
|---|--------------------|
| 1. $2\text{KClO}_3 \rightarrow 2\text{KCl} + 3\text{O}_2$   | Decomposition      |
| 2. $\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$                                      | Double Replacement |
| 3. $\text{Mg} + 2\text{HCl} \rightarrow \text{MgCl}_2 + \text{H}_2$   | Single Replacement |
| 4. $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$   | Synthesis          |
| 5. $2\text{Al} + 3\text{NiBr}_2 \rightarrow 2\text{AlBr}_3 + 3\text{Ni}$  | Single Replacement |
| 6. $4\text{Al} + 3\text{O}_2 \rightarrow 2\text{Al}_2\text{O}_3$  | Synthesis          |
| 7. $2\text{NaCl} \rightarrow 2\text{Na} + \text{Cl}_2$  | Decomposition      |
| 8. $\text{CaCl}_2 + \text{F}_2 \rightarrow \text{CaF}_2 + \text{Cl}_2$  | Single Replacement |
| 9. $\text{AgNO}_3 + \text{KCl} \rightarrow \text{AgCl} + \text{KNO}_3$  | Double Replacement |
| 10. $\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$   | Synthesis          |
| 11. $2\text{H}_2\text{O}_2 \rightarrow 2\text{H}_2\text{O} + \text{O}_2$  | Decomposition      |
| 12. $(\text{NH}_4)_2\text{SO}_4 + \text{Ba}(\text{NO}_3)_2 \rightarrow \text{BaSO}_4 + 2\text{NH}_4\text{NO}_3$ | Double Replacement |
| 13. $\text{MgI}_2 + \text{Br}_2 \rightarrow \text{MgBr}_2 + \text{I}_2$   | Single Replacement |
| 14. $\text{SO}_3 + \text{H}_2\text{O} \rightarrow \text{H}_2\text{SO}_4$  | Synthesis          |

~ ~ ~ ~ ~