BALANCING CHEMICAL EQUATIONS (USING COMPOUND NAMES)

ANSWERS TO EQUATIONS

1. $SO_3 + H_2O \longrightarrow H_2SO_4$
SYNTHESIS

2. $Pb(NO_3)_2 + 2NaI \longrightarrow PbI_2\downarrow + 2NaNO_3$
DOUBLE REPLACEMENT (lead II iodide precipitates)

3. $CaF_2 + H_2SO_4 \longrightarrow CaSO_4\downarrow + 2\ HF$
DOUBLE REPLACEMENT (calcium sulfate precipitates)

4. $CaCO_3 \longrightarrow CaO + CO_2$
DECOMPOSITION

5. $NH_3 + H_2O \longrightarrow NH_4OH$
SYNTHESIS

6. $2\ NaOH + H_2CO_3 \longrightarrow Na_2CO_3 + 2\ H_2O$
DOUBLE REPLACEMENT OR ACID-BASE NEUTRALIZATION

7. $2\ ZnS + O_2 \longrightarrow 2\ ZnO + 2\ S$
ANIONIC SINGLE REPLACEMENT

8. $Li_2O + H_2O \longrightarrow 2\ LiOH$
SYNTHESIS

9. $2\ Al(OH)_3 + 3\ H_2SO_4 \longrightarrow 6\ H_2O + Al_2(SO_4)_3$
DOUBLE REPLACEMENT OR ACID-BASE NEUTRALIZATION

10. $S + O_2 \longrightarrow SO_2$
SYNTHESIS

11. $Ba(OH)_2 + H_2SO_4 \longrightarrow 2\ H_2O + BaSO_4$
DOUBLE REPLACEMENT OR ACID-BASE NEUTRALIZATION

12. $Al_2(SO_4)_3 + 3\ Ca(OH)_2 \longrightarrow 2\ Al(OH)_3\downarrow + 3\ CaSO_4\downarrow$
DOUBLE REPLACEMENT (BOTH calcium sulfate and aluminum hydroxide are precipitates.)

13. $Cu + 2AgNO_3 \longrightarrow 2Ag + Cu(NO_3)_2$
CATIONIC SINGLE REPLACEMENT

14. $2Na + Cl_2 \longrightarrow 2\ NaCl$
SYNTHESIS

15. $Ca_3(PO_4)_2 + 3\ H_2SO_4 \longrightarrow 3\ CaSO_4 + 2\ H_3PO_4$
DOUBLE REPLACEMENT