

KEY – ACIDS, BASES, AND NEUTRALIZATION REACTIONS #1

Note: H₂O is written as HOH for convenience.

- 1) $\text{HC}_2\text{H}_3\text{O}_2 + \text{NaOH} \rightarrow \text{HOH} + \text{NaC}_2\text{H}_3\text{O}_2$ salt = sodium acetate
- 2) $\underline{2} \text{HNO}_2 + \text{Ca}(\text{OH})_2 \rightarrow \underline{2} \text{HOH} + \text{Ca}(\text{NO}_2)_2$ salt = calcium nitrite
- 3) $\underline{2} \text{H}_3\text{BO}_3 + \underline{3} \text{Ba}(\text{OH})_2 \rightarrow \underline{6} \text{HOH} + \text{Ba}_3(\text{BO}_3)_2$ salt = barium borate
- 4) $\underline{2} \text{HClO}_2 + \text{Sr}(\text{OH})_2 \rightarrow \underline{2} \text{HOH} + \text{Sr}(\text{ClO}_2)_2$ salt = strontium chlorite
- 5) $\text{HCl} + \text{NaOH} \rightarrow \text{HOH} + \text{NaCl}$ salt = sodium chloride
- 6) $\underline{3} \text{HCN} + \text{Al}(\text{OH})_3 \rightarrow \underline{3} \text{HOH} + \text{Al}(\text{CN})_3$ salt = aluminum cyanide
- 7) $\text{H}_2\text{SO}_4 + \underline{2} \text{KOH} \rightarrow \underline{2} \text{HOH} + \text{K}_2\text{SO}_4$ salt = potassium sulfate
- 8) $\underline{2} \text{HBr} + \text{Ca}(\text{OH})_2 \rightarrow \underline{2} \text{HOH} + \text{CaBr}_2$ salt = calcium bromide
- 9) $\text{HNO}_3 + \text{LiOH} \rightarrow \text{HOH} + \text{LiNO}_3$ salt = lithium nitrate
- 10) $\text{H}_2\text{C}_2\text{O}_4 + \text{Ba}(\text{OH})_2 \rightarrow \underline{2} \text{HOH} + \text{BaC}_2\text{O}_4$ salt = barium oxalate
- 11) $\text{HClO}_4 + \text{NaOH} \rightarrow \text{HOH} + \text{NaClO}_4$ salt = sodium perchlorate
- 12) $\text{H}_2\text{SO}_3 + \underline{2} \text{KOH} \rightarrow \underline{2} \text{HOH} + \text{K}_2\text{SO}_3$ salt = potassium sulfite
- 13) $\underline{2} \text{HF} + \text{Sr}(\text{OH})_2 \rightarrow \underline{2} \text{HOH} + \text{SrF}_2$ salt = strontium fluoride
- 14) $\underline{3} \text{HClO} + \text{Al}(\text{OH})_3 \rightarrow \underline{3} \text{HOH} + \text{Al}(\text{ClO})_3$ salt = aluminum hypochlorite
- 15) $\text{HMnO}_4 + \text{LiOH} \rightarrow \text{HOH} + \text{LiMnO}_4$ salt = lithium permanganate
- 16) $\underline{2} \text{HClO}_3 + \text{Ba}(\text{OH})_2 \rightarrow \underline{2} \text{HOH} + \text{Ba}(\text{ClO}_3)_2$ salt = barium chlorate
- 17) $\text{HI} + \text{KOH} \rightarrow \text{HOH} + \text{KI}$ salt = potassium iodide
- 18) $\underline{2} \text{H}_3\text{PO}_4 + \underline{3} \text{Ca}(\text{OH})_2 \rightarrow \underline{6} \text{HOH} + \text{Ca}_3(\text{PO}_4)_2$ salt = calcium phosphate
- 19) $\underline{3} \text{H}_2\text{S} + \underline{2} \text{Al}(\text{OH})_3 \rightarrow \underline{6} \text{HOH} + \text{Al}_2\text{S}_3$ salt = aluminum sulfide
- 20) $\text{H}_3\text{BO}_3 + \text{Al}(\text{OH})_3 \rightarrow \underline{3} \text{HOH} + \text{AlBO}_3$ salt = aluminum borate