

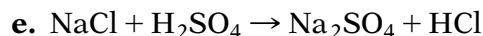
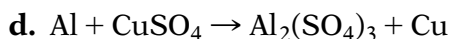
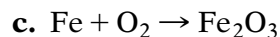
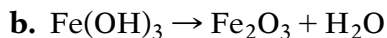
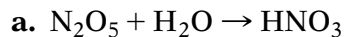
REVIEW

5

SECTION 5.3

Balancing Chemical Equations

1. **Balance** the following equations:



2. **Determine** the mole ratio for the following reaction: carbon and oxygen react to form carbon monoxide, CO.

3. **Determine** the number of moles of sodium hydroxide, NaOH, produced when 2 mol of sodium and 3 mol of water react to form sodium hydroxide and hydrogen gas, H₂.

4. **Calculate** the mass of carbon monoxide, CO, that was needed to produce 78 g of methanol, CH₃OH, by the following reaction: $2\text{H}_2 + \text{CO} \rightarrow \text{CH}_3\text{OH}$.

5. **Demonstrate** that the following chemical equation illustrates the conservation of mass in chemical reactions: $3\text{NaOH} + \text{H}_3\text{PO}_4 \rightarrow \text{Na}_3\text{PO}_4 + 3\text{H}_2\text{O}$
