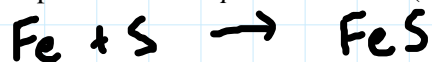


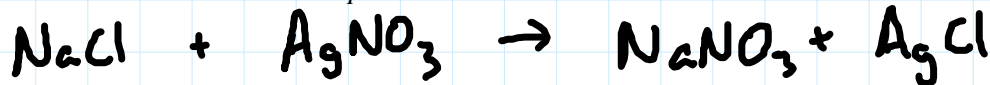
1. $2 \text{ Ca} + \text{O}_2 \rightarrow 2 \text{ CaO}$
2. $\text{Na} + \text{H}_2\text{O} \rightarrow \text{NaOH} + \text{H}_2$
3. $3 \text{ Zn} + 2 \text{ H}_3\text{PO}_4 \rightarrow \text{Zn}_3(\text{PO}_4)_2 + 3 \text{ H}_2$
4. $\text{CO}_2 + 4 \text{ H}_2 \rightarrow \text{CH}_4 + 2 \text{ H}_2\text{O}$
5. $2 \text{ NH}_3 \rightarrow \text{N}_2 + 3 \text{ H}_2$
6. $\text{CO} + \text{NO}_2 \rightarrow \text{CO}_2 + \text{NO}$
7. $\text{P}_4 + 6 \text{ Cl}_2 \rightarrow 4 \text{ PCl}_3$
8. $4 \text{ HBr} + \text{O}_2 \rightarrow 2 \text{ H}_2\text{O} + 2 \text{ Br}_2$
9. $4 \text{ Al} + 3 \text{ O}_2 \rightarrow 2 \text{ Al}_2\text{O}_3$
10. $\text{Na}_2\text{S} + 2 \text{ HCl} \rightarrow 2 \text{ NaCl} + \text{H}_2\text{S}$
11. $3 \text{ NaOH} + \text{FeCl}_3 \rightarrow 3 \text{ NaCl} + \text{Fe(OH)}_3$
12. $3 \text{ KOH} + \text{H}_3\text{PO}_4 \rightarrow \text{K}_3\text{PO}_4 + 3 \text{ H}_2\text{O}$
13. $2 \text{ NaOH} + \text{CuSO}_4 \rightarrow \text{Na}_2\text{SO}_4 + \text{Cu(OH)}_2$
14. $2 \text{ HNO}_3 + \text{Ca(OH)}_2 \rightarrow 2 \text{ H}_2\text{O} + \text{Ca(NO}_3)_2$
15. $2 \text{ NH}_3 + \text{CuO} \rightarrow 3 \text{ H}_2\text{O} + \text{Cu} + \text{N}_2$

First write the chemical formula for each compound, then balance the following chemical equations. Marks are for the correct chemical formulas and for the coefficients in front of each compound. If the equation is already balanced, write *balanced* beneath the equation.

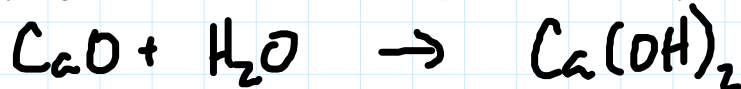
1. iron + sulphur reacts to produce iron (II) sulphide



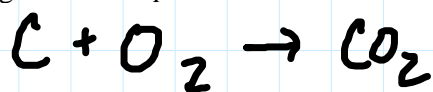
2. sodium chloride + silver nitrate reacts to produce sodium nitrate + silver chloride



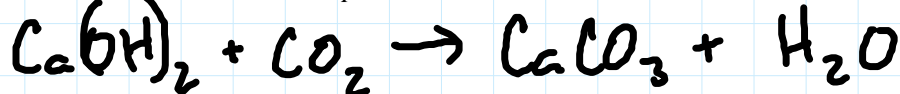
3. calcium oxide + dihydrogen monoxide (water) reacts to produce calcium hydroxide



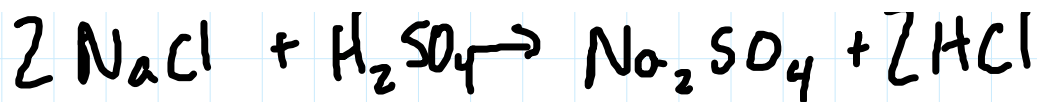
4. carbon + oxygen gas reacts to produce carbon dioxide



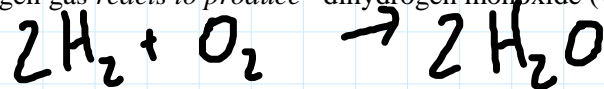
5. calcium hydroxide + carbon dioxide reacts to produce calcium carbonate + water



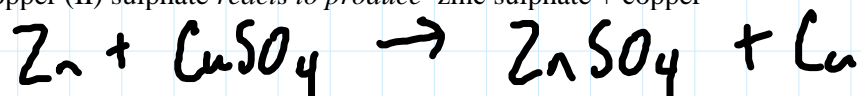
6. sodium chloride + hydrogen sulphate reacts to produce sodium sulphate + hydrogen chloride



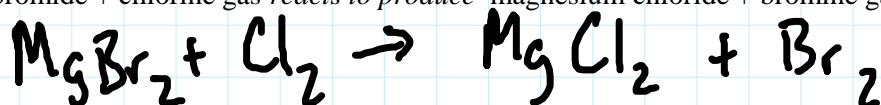
7. hydrogen gas + oxygen gas *reacts to produce* dihydrogen monoxide (water)



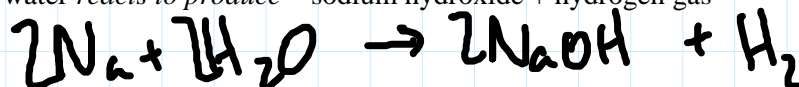
8. zinc + copper (II) sulphate *reacts to produce* zinc sulphate + copper



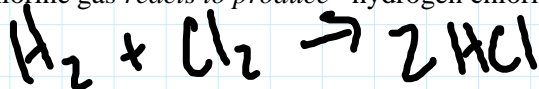
9. magnesium bromide + chlorine gas *reacts to produce* magnesium chloride + bromine gas



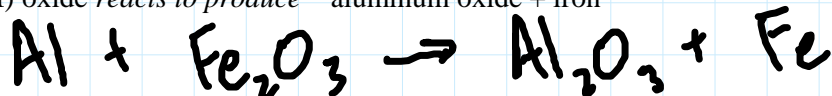
10. sodium + water *reacts to produce* sodium hydroxide + hydrogen gas



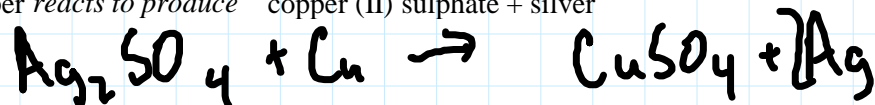
11. hydrogen gas + chlorine gas *reacts to produce* hydrogen chloride



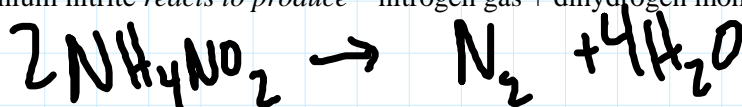
12. aluminum + iron (III) oxide *reacts to produce* aluminum oxide + iron



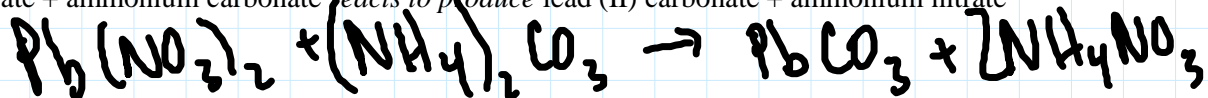
13. silver sulphate + copper *reacts to produce* copper (II) sulphate + silver



14. ammonium nitrite *reacts to produce* nitrogen gas + dihydrogen monoxide (water)



15. lead (II) nitrate + ammonium carbonate *reacts to produce* lead (II) carbonate + ammonium nitrate



Pasted from <file:///C:/Users/Janis/Desktop/Chem%2011/Problem%20Set%20Balancing.doc>