

Physical Science 10
Exam Review: Chemical Reactions

1. Define each of the following:
 - a. Law of conservation of mass
 - b. Reactants
 - c. Products
 - d. Synthesis
 - e. Decomposition
 - f. Single displacement reaction
 - g. Double displacement reaction

2. For each of the following reactions
 - a. Write a balance chemical Equation
 - b. Identify the type of reaction
 - i. iron (II) oxide \rightarrow iron + oxygen
 - ii. zinc + sodium sulphide \rightarrow sodium + zinc sulfide
 - iii. calcium chloride + lithium nitrate \rightarrow calcium nitrate + lithium chloride
 - iv. magnesium + oxygen \rightarrow magnesium oxide
 - v. chlorine + silver bromide \rightarrow bromide + silver chloride
 - vi. copper + barium sulphate \rightarrow barium + copper (I) sulphate
 - vii. sodium hydroxide + calcium carbonate \rightarrow sodium carbonate + calcium hydroxide
 - viii. potassium chloride \rightarrow potassium + chlorine

3. For each of the following combustion reactions, complete the balance chemical reaction
 - a) $C_5H_{12} + O_2 \rightarrow$
complete combustion

 - b) $C_4H_{10} + O_2 \rightarrow$
incomplete combustion

 - c) $C_6H_{14} + O_2 \rightarrow$
complete combustion

4. Solution A has a mass of 103g. Solution B has a mass of 55g. When they are mixed, a chemical reaction occurs in which a gas is produced. If the mass of the final mixture is 155g, what mass of gas was produced? Define the law of conservation of mass using this example.