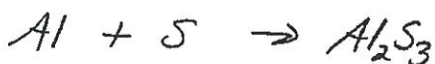


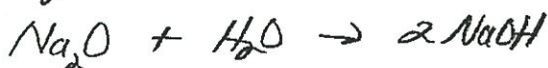
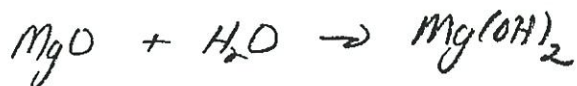
Composition Rxn (AKA Synthesis Rxn.) \rightarrow 2 or more reactants yield ONE product

① Element + Element \rightarrow Binary Compound

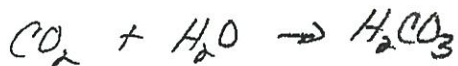


* remember elements that are diatomic (H₂, N₂, O₂, F₂, Cl₂, Br₂, I₂)

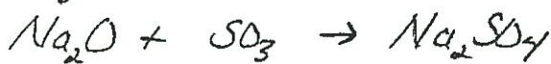
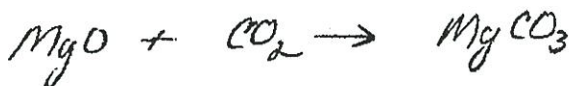
② Metal Oxide + H₂O \rightarrow Metal Hydroxide



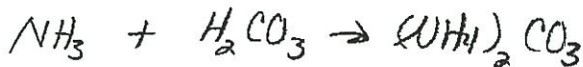
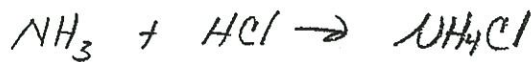
③ Nonmetal Oxide + H₂O \rightarrow Oxyacid



④ Metal Oxide + Nonmetal Oxide \rightarrow Salt (Ionic Compound)

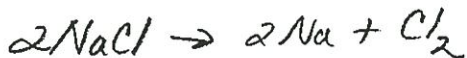
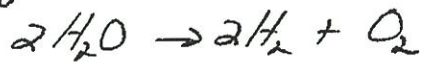


⑤ Ammonia + Acid \rightarrow Ammonium Salt

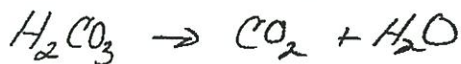


Decomposition Rxn } ONE reactant yields
2 or more products
Often requires heat added

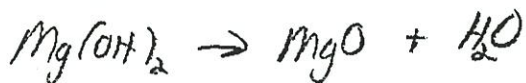
① Binary Compound \rightarrow Element + Element



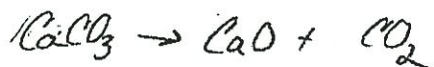
② Oxyacid \rightarrow Nonmetal Oxide + H_2O



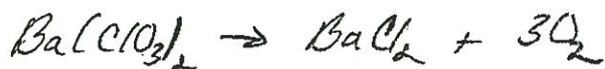
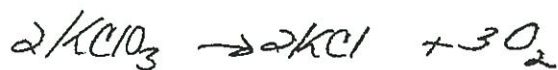
③ Metal Hydroxide \rightarrow Metal Oxide + H_2O



④ Metal Carbonate \rightarrow Metal Oxide + CO_2



⑤ Metal Chlorate \rightarrow Metal Chloride + O_2



⑥ Metal Nitrate \rightarrow Metal Oxide + NO_2 + O_2

