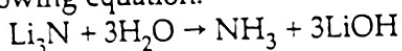


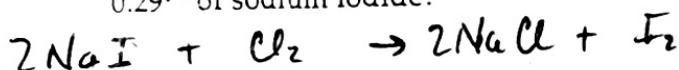
* need coefficients
 dimensional analysis → given? find?
11-2 Practice Problems

given x. $\frac{\text{find units}}{\text{given units}}$

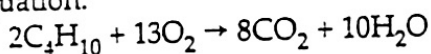
1. Determine the moles of lithium hydroxide produced when 0.38 mol of lithium nitride reacts with water according to the following equation:



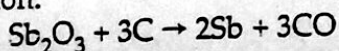
2. How many moles of sodium chloride is produced when chlorine reacts with 0.29 mol of sodium iodide?



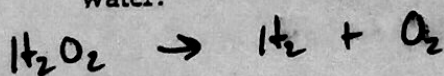
3. Determine the moles of carbon dioxide produced when 0.85 mol of butane reacts with oxygen according to the following equation:



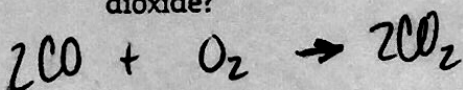
4. Determine the moles of antimony produced when 0.46 mol of antimony(III) oxide reacts with carbon according to the following equation:



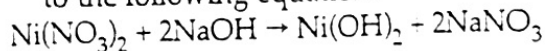
5. How many moles of hydrogen peroxide (H_2O_2) must decompose to produce 0.77 mol of water?



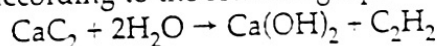
6. How many moles of carbon monoxide must react with oxygen to produce 0.69 mol of carbon dioxide?



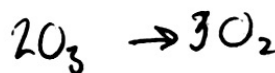
7. Determine the moles of sodium nitrate produced when 0.73 mol of nickel(II) nitrate reacts with sodium hydroxide according to the following equation:



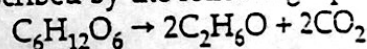
8. Determine the moles of calcium hydroxide produced when calcium carbide reacts with 0.64 mol of water according to the following equation:



9. How many moles of ozone (O_3) must decompose to produce 0.87 mol of oxygen?



- ~~10.~~ Find the mass of sugar ($\text{C}_6\text{H}_{12}\text{O}_6$) required to produce 1.82 L of carbon dioxide gas at STP from the reaction described by the following equation:



- ~~11.~~ How many liters of oxygen are necessary for the combustion of 425 g of sulfur, assuming that the reaction occurs at STP? The balanced equation is $\text{S} + \text{O}_2 \rightarrow \text{SO}_2$.

- ~~12.~~ Find the mass of benzene (C_6H_6) required to produce 2.66 L of carbon dioxide gas at STP from the reaction described by the following equation:

