

Stoichiometry Worksheet #1

Balance & Prove the Law of Conservation of Mass:

- 1) $\text{Ca}(\text{OH})_2 + \text{MgCO}_3 \rightarrow \text{CaCO}_3 + \text{Mg}(\text{OH})_2$
- 2) $\text{Al} + \text{ZnCl}_2 \rightarrow \text{Zn} + \text{AlCl}_3$
- 3) $\text{C}_3\text{H}_8 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$
- 4) $\text{Na}_2\text{SO}_4 + \text{Al}(\text{NO}_3)_3 \rightarrow \text{NaNO}_3 + \text{Al}_2(\text{SO}_4)_3$
- 5) $\text{HCl} + \text{NaHCO}_3 \rightarrow \text{NaCl} + \text{CO}_2 + \text{H}_2\text{O}$
- 6) $\text{Cu} + \text{O}_2 \rightarrow \text{Cu}_2\text{O}$

- 7) Using $4\text{Fe} + 3\text{O}_2 \rightarrow 2\text{Fe}_2\text{O}_3$
 - a) How many moles of O_2 are reacted to form 2.12 mol Fe_2O_3 ?
 - b) How many moles of Fe_2O_3 are produced from 13.1 mol Fe?
- 8) Using $\text{C}_3\text{H}_8 + 5\text{O}_2 \rightarrow 3\text{CO}_2 + 4\text{H}_2\text{O}$
 - a) How many moles of C_3H_8 are needed to make 9.87 moles of H_2O ?
 - b) How many moles of CO_2 are produced when 6.47 moles of O_2 are reacted?

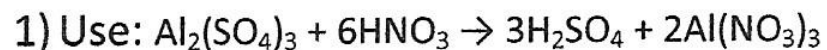
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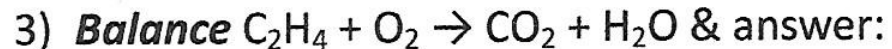
Stoichiometry Worksheet #2



- How many grams of HNO_3 are reacted to form 42.17 grams H_2SO_4 ?
- How many grams of $\text{Al}(\text{NO}_3)_3$ are produced from 68.21 grams of $\text{Al}_2(\text{SO}_4)_3$?

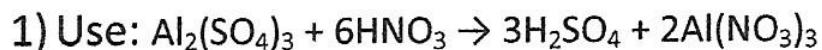


- How many grams of CBr_4 are produced from 9.87 grams of KBr ?
- How many grams of CS_2 are needed when 54.0 grams of KBr are reacted?



- How many grams of CO_2 can be made from 221 grams of C_2H_4 ?
- How many grams of O_2 are needed to react with 354 grams of C_2H_4 ?

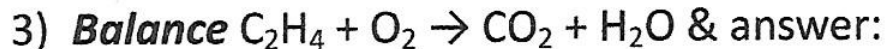
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