Stoichiometry Worksheet #1

Balance & Prove the Law of Conservation of Mass:

1) $Ca(OH)_2 + MgCO_3 \rightarrow CaCO_3 + Mg(OH)_2$
2) $Al + ZnCl_2 \rightarrow Zn + AlCl_3$
3) $C_3H_8 + O_2 \rightarrow CO_2 + H_2O$
4) $Na_2SO_4 + Al(NO_3)_3 \rightarrow NaNO_3 + Al_2(SO_4)_3$
5) $HCl + NaHCO_3 \rightarrow NaCl + CO_2 + H_2O$
6) $Cu + O_2 \rightarrow Cu_2O$

7) Using $4Fe + 3O_2 \rightarrow 2Fe_2O_3$
   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 $C_3H_8 + 5O_2 \rightarrow 3CO_2 + 4H_2O$
   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

1) Use: $Al_2(SO_4)_3 + 6HNO_3 \rightarrow 3H_2SO_4 + 2Al(NO_3)_3$

a) How many grams of HNO_3 are reacted to form 42.17 grams H_2SO_4?

b) How many grams of $Al(NO_3)_3$ are produced from 68.21 grams of $Al_2(SO_4)_3$?

2) Use: $4KBr + CS_2 \rightarrow 2K_2S + CBr_4$

a) How many grams of CBr_4 are produced from 9.87 grams of KBr?

b) How many grams of CS_2 are needed when 54.0 grams of KBr are reacted?

3) ***Balance*** $C_2H_4 + O_2 \rightarrow CO_2 + H_2O$ & answer:

a) How many grams of CO_2 can be made from 221 grams of C_2H_4?

b) How many grams of O_2 are needed to react with 354 grams of C_2H_4?

Stoichiometry Worksheet #2

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a) How many grams of CBr_4 are produced from 9.87 grams of KBr?

b) How many grams of CS_2 are needed when 54.0 grams of KBr are reacted?

3) ***Balance*** $C_2H_4 + O_2 \rightarrow CO_2 + H_2O$ & answer:

a) How many grams of CO_2 can be made from 221 grams of C_2H_4?

b) How many grams of O_2 are needed to react with 354 grams of C_2H_4?