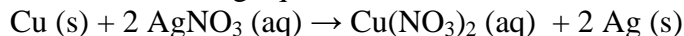


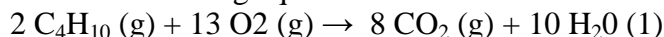
Mass Appeal HW

1) Consider the following equation:



- How many moles of Cu, copper, are needed to react with 6 moles of silver nitrate, AgNO_3 ?
- What is the mole ratio of Cu to $\text{Cu(NO}_3)_2$?
- What is the mole ratio of AgNO_3 to $\text{Cu(NO}_3)_2$?
- What is the mole ratio of AgNO_3 to Ag?
- If 10 grams of Ag are produced, how much AgNO_3 is used? Show your steps.

2) Consider the following equation:



- List the mole ratios of reactants to the various products.
- If 5 moles of ethane, C_4H_{10} are used, how many moles of water are produced?
- If 10 moles of oxygen, O_2 are used, how many moles of carbon dioxide are produced?
- How many grams of CO_2 will be produced if 42 grams of ethane, C_4H_{10} are used? Show your steps.

Selected Answers:

- 3 moles (because the AgNO_3 was tripled)
- 1 mol Cu:1 mol $\text{Cu(NO}_3)_2$
- 2 mol AgNO_3 : 1 mol $\text{Cu(NO}_3)_2$
- 1 mol AgNO_3 : 1 mol Ag
- $$\frac{10 \text{ g Ag}}{108 \text{ g Ag}} \left| \frac{1 \text{ mol Ag}}{1 \text{ mol Ag}} \right| \left| \frac{1 \text{ mol AgNO}_3}{1 \text{ mol Ag}} \right| \left| \frac{170 \text{ g AgNO}_3}{1 \text{ mol AgNO}_3} \right| = 15.7 \text{ g AgNO}_3$$