



Name: ______ Date: _____

MASS TO MOLE STOICHIOMETRY

Answer the questions. Write answers on new paper.

1. In photosynthesis, water reacts with carbon dioxide to give oxygen and glucose (${\rm C_6H_{12}O_6}$). Write and balance the chemical equation. How many moles of ${\rm CO_2}$ are required to make 120.0g of glucose?

$$2. K_3 PO_4 + Al(NO_3)_3 \longrightarrow 3KNO_3 + AlPO_4$$

a. What is the mass of potassium nitrate that is produced when 2.04 moles of potassium phosphate react?

b. If 5.80g of aluminum phosphate are formed, how many moles of aluminum nitrate reacted?

$$3. N_2 + 20_2 \longrightarrow N_2O_4$$

a. If 15.0g of N₂O₄ was produced, how many moles of O₂ were required?

b. If 4.0x103 moles of oxygen reacted, how many grams of $N_{\rm 2}$ were needed?

a. If you have 5.50 mol of CaC_2 , how much C_2H_2 do you get?

b. How many moles of water are needed when 65.0g of ${\rm CaC}_2$ have reacted?



