Chemistry 1 Evaluation – Stoichiometry   Name_____

Block_____   Date_____

For the following problems, _SHOW ALL WORK_.

1.   Given the reaction,

$$2H_{2(g)} \ + \ O_{2(g)} \ \rightarrow \ 2H_2O_{(g)}$$
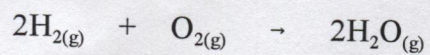
to produce 0.600 moles of $H_2O_{(g)}$,

a.) how many moles of H_2 are needed?

b.) how many liters of O_2 are needed?
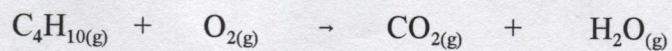
c.) how many molecules of O_2 are needed?

2.   Given the reaction

$$NH_{3(g)} + O_{2(g)} \rightarrow NO_{(g)} + H_2O_{(g)}$$

how many grams of NH_3 will be required to react with 43g of O_2?

3.   Given the following reaction

$$C_4H_{10(g)} + O_{2(g)} \rightarrow CO_{2(g)} + H_2O_{(g)}$$

determine the number of liters of carbon dioxide produced when 78.0 liters of oxygen gas is used.