## **Chemistry 11**

## **Limiting & Excess Reactants**

Name: Date: Block:

1. Consider the following reaction:

$$\_$$
 C +  $\_$  SO<sub>2</sub>  $\rightarrow$   $\_$  CS<sub>2</sub> +  $\_$  CO

a. What mass of  $CS_2$  is produced when 17.5 g of C are reacted with 39.5 g of  $SO_2$ ?

b. What mass of the excess reactant will be left over?

2. Consider the following reaction:

$$\_$$
 Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub> +  $\_$  SiO<sub>2</sub> +  $\_$  C  $\rightarrow$   $\_$  P<sub>4</sub> +  $\_$  CaSiO<sub>3</sub> +  $\_$  CO

a. What mass of  $P_4$  is produced when 41.5 g of  $Ca_3(PO_4)_2$ , 26.5 g of  $SiO_2$  and 7.80 g of C are reacted?

b. How many grams of each excess reactant will remain unreacted?