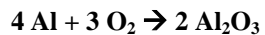


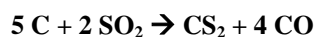
Name: _____ Band: _____ HW 8.1.



1) How many moles of Aluminum are needed to form 3.7 moles of Al_2O_3 ?
= _____ moles Al

2) How many moles of oxygen are required to react with 14.8 moles of Aluminum?
= _____ moles O_2

3) Calculate the number of moles of Al_2O_3 formed when 0.78 moles of O_2 react with aluminum.
= _____ moles Al_2O_3



4) How many moles of CS_2 form when 2.7 mole of C reacts?
= _____ moles CS_2

5) How many moles of Carbon are needed to react with 5.44 mole of SO_2 ?
= _____ moles C

6) How many moles of CO form at the same time that 0.246 mole of CS_2 forms?
= _____ moles CO

7) How many moles of SO_2 are required to make 118 moles of CS_2 ?
= _____ moles SO_2

8) List all the possible mole ratios for both reactions: (An example is given within each table)

	Al	O_2	Al_2O_3
Al	N/A	$\frac{3 \text{ moles } \text{O}_2}{4 \text{ moles Al}}$	
O_2		N/A	
Al_2O_3			N/A

	C	SO_2	CS_2	CO
C	N/A			
SO_2		N/A		$\frac{4 \text{ moles CO}}{2 \text{ moles } \text{SO}_2}$
CS_2			N/A	
CO				N/A