

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 5G – Molar Mass Conversions (Part 2)

20 Points

For the following calculate the molar mass and convert the following measurements

Molar Mass

#g in
(per)
1 mol1 mol Al_2O_3
= 101.96g
 Al_2O_3

* unrounded

1.17693213...

Round Here!

Aluminum Oxide [Al_2O_3]		
Element	#	Molar Mass
Aluminum (Al)	2	$2 \times 26.98 \text{ g/mol}$
Oxygen (O)	3	$+ 3 \times 16.00 \text{ g/mol}$
Aluminum Oxide (Al_2O_3)		$= 101.96 \text{ g/mol}$

Convert 120.0g Al_2O_3 to mol Al_2O_3		
	Start	Final
120.0g Al_2O_3	$\times$	1 mol Al_2O_3
		$101.96 \text{ g Al}_2\text{O}_3$
Mol Al_2O_3		$= 1.18 \text{ mol Al}_2\text{O}_3$

Copper(II)Nitride [Cu_3N_2]		
Element	#	Molar Mass
Copper (Cu)		
Nitrogen (N)		
Copper(II)Nitride [Cu_3N_2]		

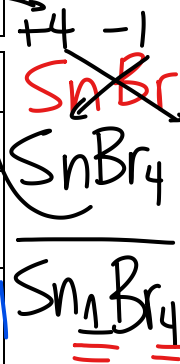
Convert 82.3g Cu_3N_2 to mol Cu_3N_2		
Mol Cu_3N_2		

Vanadium(III) Fluoride [VF_3]		
Element	#	Molar Mass
Vanadium (V)		
Fluorine (F)		
Vanadium(III) Fluoride (VF_3)		

Convert 1.40mol VF_3 to mass VF_3		
Mass VF_3		

Tin(IV)Bromide [SnBr_4]		
Element	#	Molar Mass
Tin (Sn)	1	118.71 g/mol
Bromine (Br)	4	79.90 g/mol
Tin(IV)Bromide [SnBr_4]		$= 438.31 \text{ g/mol}$

Convert 2.50mol SnBr_4 to mass SnBr_4		
	Start	Final
2.50mol SnBr_4	$\rightarrow$	438.31 g SnBr_4
		1 mol SnBr_4
Mass SnBr_4		$= 1095.78 \text{ g SnBr}_4$



Silver(I)Sulfide [Ag ₂ S]		
Element	#	Molar Mass
Silver (Ag)		
Sulfur (S)		
Silver(I)Sulfide [Ag ₂ S]		

Convert 156.3g Ag ₂ S to mol Ag ₂ S	
Mol Ag ₂ S	

Tungsten(VI) Oxide [WO ₃]		
Element	#	Molar Mass
Tungsten (W)		
Oxygen (O)		
Tungsten(VI) Oxide [WO ₃]		

Convert 3.25mol WO ₃ to mass WO ₃	
Mass WO ₃	