

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 5Q – Unit 5 Review – Stoichiometry

30 Points

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

Aluminum Hydroxide [NaOH]		
Element	#	Molar Mass
Sodium (Na)		
Oxygen (O)		
Hydrogen (H)		
Sodium Hydroxide (NaOH)		

Convert 394.0 NaOH to mol NaOH	
mol NaOH	

Copper(III)Oxalate [Cu ₂ (C ₂ O ₄) ₃]		
Element	#	Molar Mass
Copper (Cu)		
Carbon (C)		
Oxygen (O)		
Copper(III)Oxalate Cu ₂ (C ₂ O ₄) ₃		

Convert 1.73mol Cu ₂ (C ₂ O ₄) ₃ to mass Cu ₂ (C ₂ O ₄) ₃	
mass Cu ₂ (C ₂ O ₄) ₃	

For the following chemical reactions, complete the chart and perform the following conversions

Chemical Equation	6NaOH + Cu ₂ (C ₂ O ₄) ₃ → 3Na ₂ C ₂ O ₄ + 2Cu(OH) ₃							
Molar Ratio								

Convert 6.62mol Cu(OH) ₃ to mol NaOH	
<i>Conversion 2</i>	
mol NaOH =	

Convert mol NaOH to mass NaOH	
<i>Conversion 3</i>	
mass NaOH =	

Convert 359.2g Cu ₂ (C ₂ O ₄) ₃ to mol Cu ₂ (C ₂ O ₄) ₃	
<i>Conversion 1</i>	
mol Cu ₂ (C ₂ O ₄) ₃ =	

Convert mol Cu ₂ (C ₂ O ₄) ₃ to mol Cu(OH) ₃	
<i>Conversion 2</i>	
mol Cu(OH) ₃ =	

For the following chemical reactions, complete the chart and perform the following conversions

Chemical Equation	$\text{Fe}_3\text{P}_2 + \text{V}_2(\text{SO}_4)_3 \rightarrow 3\text{FeSO}_4 + 2\text{VP}$							
Molar Ratio								

MM Fe_3P_2	229.49g/mol
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MM VP	81.91g/mol
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Convert 392.27g Fe_3P_2 to mol Fe_3P_2
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Convert mol Fe_3P_2 to mol VP

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<i>Conversion 1</i>	
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<i>Conversion 2</i>	
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mol Fe_3P_2 =	
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mol VP =	
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Convert mol VP to mass VP

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<i>Conversion 3</i>	
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mass VP =	
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Chemical Equation	$\text{PbBr}_4 + \text{Cl}_2 \rightarrow \text{PbCl}_4 + \text{Br}_2$							
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MM PbBr_4	526.08g/mol
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MM Br_2	159.80g/mol
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Convert 659.5g PbBr_4 to mol PbBr_4

Convert mol PbBr_4 to mol Br_2
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<i>Conversion 1</i>	
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<i>Conversion 2</i>	
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mol PbBr_4 =	
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mol Br_2 =	
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Convert mol Br_2 to volume Br_2

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<i>Conversion 3</i>	
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volume Br_2 =	
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