

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 5H – Molar Mass Conversions (Part 3)

20 Points

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

Yttrium(III)Nitrate [Y(NO ₃) ₃]		
Element	#	Molar Mass
Yttrium (Y)		
Nitrogen (N)		
Oxygen (O)		
Yttrium(III)Nitrate [Y(NO ₃) ₃]		

Convert 154.6g Y(NO ₃) ₃ to mol Y(NO ₃) ₃	
Mol Y(NO ₃) ₃	

Lithium Manganate [Li ₂ MnO ₄]		
Element	#	Molar Mass
Lithium (Li)		
Magnesium (Mn)		
Oxygen (O)		
Lithium Manganate [Li ₂ MnO ₄]		

Convert 214.5g Li ₂ MnO ₄ to mol Li ₂ MnO ₄	
Mol Li ₂ MnO ₄	

Zirconium(I)Hydroxide [ZrOH]		
Element	#	Molar Mass
Zirconium (Zr)		
Oxygen (O)		
Hydrogen (H)		
Zirconium(I)Hydroxide [ZrOH]		

Convert 1.70mol ZrOH to mass ZrOH	
Mass ZrOH	

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

Convert 5.80mol Rh ₂ (C ₂ O ₄) ₃ to mass Rh ₂ (C ₂ O ₄) ₃	
Mass Rh ₂ (C ₂ O ₄) ₃	

Cadmium(I)Phosphate [Cd_3PO_4]		
Element	#	Molar Mass
Cadmium (Cd)		
Phosphorous (P)		
Oxygen (O)		
Cadmium(I)Phosphate [Cd_3PO_4]		

Convert 92.5g Cd_3PO_4 to mol Cd_3PO_4	
Mol Cd_3PO_4	

Lead(IV)Thiosulfate [$\text{Pb}(\text{S}_2\text{O}_3)_2$]		
Element	#	Molar Mass
Lead (Pb)		
Sulfur (S)		
Oxygen (O)		
Lead(IV)Thiosulfate [$\text{Pb}(\text{S}_2\text{O}_3)_2$]		

Convert 3.49mol $\text{Pb}(\text{S}_2\text{O}_3)_2$ to mass $\text{Pb}(\text{S}_2\text{O}_3)_2$	
Mass $\text{Pb}(\text{S}_2\text{O}_3)_2$	

Copper(III)Iodate [$\text{Cu}(\text{IO}_3)_3$]		
Element	#	Molar Mass
Copper (Cu)		
Iodine (I)		
Oxygen (O)		
Copper(III)Iodate [$\text{Cu}(\text{IO}_3)_3$]		

Convert 38.23g $\text{Cu}(\text{IO}_3)_3$ to mol $\text{Cu}(\text{IO}_3)_3$	
Mol $\text{Cu}(\text{NO}_3)_3$	

Magnesium Carbonate [MgCO_3]		
Element	#	Molar Mass
Magnesium (Mg)		
Carbon (C)		
Oxygen (O)		
Magnesium Carbonate [MgCO_3]		

Convert 0.528mol MgCO_3 to mass MgCO_3	
Mass $\text{Mg}_3(\text{PO}_4)_2$	