

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 6G – Triple Stoichiometry Conversions (Part 1)

20 Points

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

Chemical Equation	$2\text{FeBr}_2 + \text{TiO}_2 \rightarrow 2\text{FeO} + \text{TiBr}_4$			
Molar Ratio	mol $\text{FeBr}_2 =$	mol $\text{TiO}_2 =$	mol $\text{FeO} =$	mol TiBr_4

MM FeBr_2	215.65g/mol
MM TiO_2	79.87g/mol

MM FeO	71.85g/mol
MM TiBr_4	367.47g/mol

Convert 321.4g FeBr_2 to mol FeBr_2	
mol $\text{FeBr}_2 =$	

Convert mol FeBr_2 to mol TiBr_4	
mol $\text{TiBr}_4 =$	

Convert mol TiBr_4 to mass TiBr_4	
mass $\text{TiBr}_4 =$	

Convert 110.4g TiO_2 to mol TiO_2	
mol $\text{TiO}_2 =$	

Convert mol TiO_2 to mol FeO	
mol $\text{FeO} =$	

Convert mol FeO to mass FeO	
mass $\text{FeO} =$	

Chemical Equation	$2\text{Cu}_2\text{O}_3 + 3\text{PbCl}_4 \rightarrow 4\text{CuCl}_3 + 3\text{PbO}_2$			
Molar Ratio	mol $\text{Cu}_2\text{O}_3 =$	mol $\text{PbCl}_4 =$	mol $\text{CuCl}_3 =$	mol PbO_2

MM Cu_2O_3	175.10g/mol
MM PbCl_4	349.00g/mol

MM CuCl_3	169.90g/mol
MM PbO_2	239.20g/mol

Convert 663.29g Cu_2O_3 to mol Cu_2O_3	
mol $\text{Cu}_2\text{O}_3 =$	

Convert mol Cu_2O_3 to mol CuCl_3	
mol $\text{CuCl}_3 =$	

Convert mol CuCl_3 to mass CuCl_3	
mass $\text{CuCl}_3 =$	

Convert 245.81g PbO_2 to mol PbO_2	
mol $\text{PbO}_2 =$	

Convert mol PbO_2 to mol PbCl_4	
mol $\text{PbCl}_4 =$	

Convert mol PbCl_4 to mass PbCl_4	
mass $\text{PbCl}_4 =$	