

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 5K – Double Molar Conversions (Part 2)

20 Points

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

Chemical Equation	$\text{Ti}(\text{SO}_4)_2 + 2\text{Mg}(\text{ClO}_3)_2 \rightarrow \text{Ti}(\text{ClO}_3)_4 + 2\text{MgSO}_4$							
Molar Ratio								

MM $\text{Ti}(\text{ClO}_3)_4$	318.67g/mol	MM MgSO_4	120.38g/mol
Convert 4.59mol $\text{Mg}(\text{ClO}_3)_2$ to mol $\text{Ti}(\text{ClO}_3)_4$		Convert mol $\text{Ti}(\text{ClO}_3)_4$ to mass $\text{Ti}(\text{ClO}_3)_4$	
mol $\text{Ti}(\text{ClO}_3)_4 =$		mass $\text{Ti}(\text{ClO}_3)_4 =$	

Convert 380.0g MgSO_4 to mol MgSO_4		Convert mol MgSO_4 to mol $\text{Ti}(\text{SO}_4)_2$	
mol $\text{MgSO}_4 =$		mol $\text{Ti}(\text{SO}_4)_2 =$	

Chemical Equation	$\text{Cr}_3\text{N}_2 + 3\text{Zn}_2\text{SO}_4 \rightarrow 3\text{CrSO}_4 + 2\text{Zn}_3\text{N}$							
Molar Ratio								

MM Cr_3N_2	318.67g/mol		
Convert 6.29mol Zn_3N to mol Cr_3N_2		Convert mol Cr_3N_2 to mass Cr_3N_2	
mol $\text{Cr}_3\text{N}_2 =$		mass $\text{Cr}_3\text{N}_2 =$	