Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 6E – Double Molar Conversions with Molar Volume 20 Points

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

Chemical Equation	$2V_2O_3 + 3Cl_2 \rightarrow 2VCl_3 + 3O_2$			
Molar Ratio	mol V_2O_3 =	mol Cl_2 =	mol VCl_3 =	mol O_2

Convert 52.84L Cl_2 to mol Cl_2			Convert _____mol Cl_2 to mol VCl_3		
mol Cl_2			mol VCl_3		

Convert 4.28mol V_2O_3 to mol Cl_2			Convert _____mol Cl_2 to volume Cl_2		
mol Cl_2			volume Cl_2		

Chemical Equation	$H_2SO_4 + Cu(OH)_3 \rightarrow Cu_2(SO_4)_3 + HOH$			
Molar Ratio	mol H_2SO_4 =	mol $Cu(OH)_3$ =	mol $Cu_2(SO_4)_3$ =	mol HOH
Molar Mass	Molar Mass H_2SO_4 = 98.09g/mol		Molar Mass $Cu_2(SO_4)_3$ = 415.31g/mol	

Convert 5.28mol H_2SO_4 to mol HOH			Convert _____mol HOH to volume HOH		
mol HOH			volume HOH		

Chemical Equation	$2SF_3 \rightarrow 2S + 3F_2$
Molar Ratio	mol SF_3 = mol S = mol F_2

Convert 2.85mol SF_3 to mol F_2			Convert _____mol F_2 to volume F_2	
mol F_2			volume F_2	

Convert 58.38L F_2 to mol F_2			Convert _____mol F_2 to mol SF_3	
mol F_2			mol SF_3	