

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 5I – Molar Ratio Conversions

20 Points

Define the following mol terms

Define Atomic Ratio	Define Molar Ratio

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

Chemical Equation	$4\text{Al} + 3\text{O}_2 \rightarrow 2\text{Al}_2\text{O}_3$					
Atomic Ratio						
Molar Ratio						

Convert 7.23mol Al to mol Al_2O_3			Convert 5.09mol Al_2O_3 to mol O_2		
mol Al_2O_3			mol O_2		

Chemical Equation	$\text{Fe}(\text{BrO}_3)_2 \rightarrow \text{Fe} + 2\text{BrO}_3$					
Atomic Ratio						
Molar Ratio						

Convert 2.70mol $\text{Fe}(\text{BrO}_3)_2$ to mol BrO_3			Convert 8.02mol Fe to mol $\text{Fe}(\text{BrO}_3)_2$		
mol BrO_3			mol $\text{Fe}(\text{BrO}_3)_2$		

Chemical Equation	$2\text{Ag} + \text{Ca}(\text{ClO}_3)_2 \rightarrow \text{Ca} + 2\text{AgClO}_3$							
Atomic Ratio								
Molar Ratio								

Convert 1.52mol Ag to mol Ca				Convert 1.74mol AgClO ₃ to mol Ca(ClO ₃) ₂			
mol Ca				mol Ca(ClO ₃) ₂			

Chemical Equation	$3\text{H}_2\text{SO}_4 + 2\text{V}(\text{OH})_3 \rightarrow 6\text{HOH} + \text{V}_2(\text{SO}_4)_3$							
Atomic Ratio								
Molar Ratio								

Convert 6.00mol V(OH) ₃ to mol HOH				Convert 2.87mol V ₂ (SO ₄) ₃ to mol H ₂ SO ₄			
mol HOH				mol H ₂ SO ₄			