

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	<u>4</u> Al + <u>3</u> O ₂ → <u>2</u> Al ₂ O ₃					
Atomic Ratio	4	Al	3	O ₂	2	Al ₂ O ₃
Molar Ratio	4*	mol Al	=	3	mol O ₂	= 2** mol Al ₂ O ₃

Convert 7.23mol Al to mol Al ₂ O ₃			Convert 5.09mol Al ₂ O ₃ to mol O ₂		
7.23mol Al	2 mol Al ₂ O ₃ *		5.09mol Al ₂ O ₃	mol O ₂	
	4 mol Al*			mol Al ₂ O ₃	
mol Al ₂ O ₃	3.62 mol Al ₂ O ₃		mol O ₂		

Chemical Equation	$\text{Fe}(\text{BrO}_3)_2 \rightarrow \text{Fe} + 2\text{BrO}_3$				
Atomic Ratio	1	Fe(BrO ₃) ₂	1		
Molar Ratio					

Convert 2.70mol Fe(BrO ₃) ₂ to mol BrO ₃		Convert 8.02mol Fe to mol Fe(BrO ₃) ₂	
mol BrO ₃		mol Fe(BrO ₃) ₂	

Atom Count
Molar Count
based on #part./mol)
qn. Ratio
1:3:2
Equation Math
.23 x 2
4

3.615mol,
rnd to 2 after)