

Selected Answers

① Write labels

Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 5L – Double Molar Conversions Review

20 Points

② Deter. Start/find

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

③ Plug In
④ Solve

Chemical Equation	$3\text{Ca}(\text{FO}_3)_2 + \text{V}_2\text{O}_3 \rightarrow 3\text{CaO} + 2\text{V}(\text{FO}_3)_3$						
Molar Ratio							

MM V_2O_3	149.88g/mol	MM $\text{V}(\text{FO}_3)_3$	251.94g/mol
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Convert 1.78mol V_2O_3 to mol $\text{Ca}(\text{FO}_3)_2$	Convert 183.4g $\text{V}(\text{FO}_3)_3$ to mol $\text{V}(\text{FO}_3)_3$
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Start 1.78mol V_2O_3	mol $\text{Ca}(\text{FO}_3)_2$	$\text{V}(\text{FO}_3)_3$	$\text{V}(\text{FO}_3)_3$
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Conversion (2)	mol V_2O_3	Conversion (1)	$\text{V}(\text{FO}_3)_3$
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mol $\text{Ca}(\text{FO}_3)_2 =$		mol $\text{CaO} =$	
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Convert 247.4g V_2O_3 to mol V_2O_3	Convert mol V_2O_3 to mol CaO
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V_2O_3	V_2O_3	V_2O_3	CaO
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Conversion (1)	V_2O_3	Conversion (2)	V_2O_3
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mol $\text{V}_2\text{O}_3 =$		mol $\text{CaO} =$	
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Convert 5.80mol $\text{Ca}(\text{FO}_3)_2$ to mol $\text{V}(\text{FO}_3)_3$	Convert mol $\text{V}(\text{FO}_3)_3$ to mass $\text{V}(\text{FO}_3)_3$
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$\text{Ca}(\text{FO}_3)_2$	$\text{V}(\text{FO}_3)_3$	$\text{V}(\text{FO}_3)_3$	$\text{V}(\text{FO}_3)_3$
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Conversion (2)	$\text{Ca}(\text{FO}_3)_2$	Conversion (3)	$\text{V}(\text{FO}_3)_3$
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mol $\text{V}(\text{FO}_3)_3 =$		mol $\text{V}(\text{FO}_3)_3 =$	
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① mass A $\rightarrow$ mol A ② mol A $\rightarrow$ mol B ③ mol B $\rightarrow$ mass B

$$\frac{1 \text{ mol A}}{\text{MM g A}}$$

one compound, start w/g

$$\frac{\text{Ratio mol B}}{\text{Ratio mol A}}$$

two different compounds

$$\frac{\text{MM g B}}{1 \text{ mol B}}$$

one compound, start w/mol

Start
g $\text{V}(\text{FO}_3)_3$

Find
mol $\text{V}(\text{FO}_3)_3$

Start
mol V_2O_3

Find
mol CaO

Start
mol $\text{V}(\text{FO}_3)_3$

Find
g $\text{V}(\text{FO}_3)_3$