


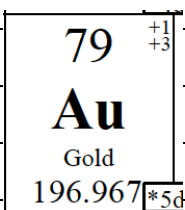
Cornell Notes 	Topic/Objective: <b>One Step Problems (Part II)</b>	Name:
	(Mass/Moles, Volume/Moles Conversions, and	Class/Period: <b>Chemistry</b>
	Multiple Conversions	Date:

Essential Questions: **How can you convert between moles, mass, and volume?**

Questions:	Notes:										
How is the chart setup for conversion between moles and mass? Moles and volume?	<table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 50%; height: 40px;">Formula</td> <td style="width: 50%; height: 40px;">Formula</td> </tr> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> </table>	Formula	Formula								
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How do you convert from mass to moles?	<p>calcium, the fifth most abundant element on Earth, is always found combined with other elements because of its high reactivity.</p> <p>How many moles of calcium chloride are in 525 g calcium chloride <math>\text{CaCl}_2</math>?</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center; padding: 5px;"> <math>20^{+2}</math>  <b>Ca</b>            Calcium  <math>40.078</math> </td> <td style="text-align: center; padding: 5px;"> <math>17^{+1, +5, +7, -1}</math>  <b>Cl</b>            Chlorine  <math>35.453</math> </td> </tr> </table> <p style="text-align: center;"><b>Molar Mass Calculations:</b></p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 50%; height: 40px;">Formula</td> <td style="width: 50%; height: 40px;"></td> </tr> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> </table>	$20^{+2}$ <b>Ca</b> Calcium $40.078$	$17^{+1, +5, +7, -1}$ <b>Cl</b> Chlorine $35.453$	Formula							
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How do you convert from volume to moles?	<p>carbon dioxide (<math>\text{CO}_2</math>) is a gas produced following the combustion of gasoline in a car engine. Calculate the moles of 35.9 liters of carbon dioxide.</p> <table border="1" style="width: 100%; text-align: center;"> <tr> <td style="width: 50%; height: 40px;">Formula</td> <td style="width: 50%; height: 40px;"></td> </tr> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> <tr> <td style="height: 40px;"></td> <td style="height: 40px;"></td> </tr> </table>	Formula									
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**What do you have to do to move from one conversion box to another?**

**How do you convert from mass to particles?** Gold is one of a group of metals called the coinage metals (copper, silver, and gold). How many atoms of gold (Au) are in a pure gold nugget having a mass of 25.0 g?



	<b>Formula</b>

	<b>Formula</b>

**How do you convert from particles to volume?** What is the volume in liters of  $3.40 \times 10^{22}$  atoms of  $MgSO_4$ ?

	<b>Formula</b>

	<b>Formula</b>

**Summary:**