



Kelly

<p>____ 1. Given the chemical symbol/formula, I can determine how many atoms are present.</p>	<p><input type="checkbox"/> How many atoms are in <math>N_2</math>? <u>2</u></p> <p><input type="checkbox"/> What is the total # of atoms in <math>Pb(C_2H_3O_2)_2</math>? <u>15</u></p> <p><input type="checkbox"/> How many atoms of C are in <math>Pb(C_2H_3O_2)_2</math>? <u>4</u></p>
<p>____ 2. I can determine the gram-formula mass for any element or compound.</p>	<p><input type="checkbox"/> What is the gfm for <math>N_2</math>? <math>2(14.0) = 28 \text{ g/mol}</math></p> <p><input type="checkbox"/> What is the gfm for <math>Pb(C_2H_3O_2)_2</math>? <math>325.29 \text{ g/mol}</math></p>
<p>____ 3. I can define a mole as it pertains to chemistry.</p>	<p><u>Definition:</u> <math>6.02 \times 10^{23}</math></p>
<p>____ 4. I can find the number of moles of substance if I am given the mass and formula for the substance. Using dimensional Analysis</p>	<p>94.3 g is how many moles of NaCl? <math>94.3 \text{ g} \cdot \frac{1 \text{ mol}}{58.5 \text{ g}} = 1.6 \text{ mol}</math></p>
<p>____ 5. I can find the number of grams of a substance if I am given the number of moles. Using Dimensional analysis.</p>	<p>2 Moles of <math>O_2</math> is how many grams? <math>2 \text{ mol} \cdot \frac{32 \text{ g}}{1 \text{ mol}} = 64 \text{ g}</math></p>
<p>____ 6. I can determine the percent composition of an element in a compound.</p>	<p>What is the percent by mass of Mg in <math>Mg(NO_3)_2</math>? <math>\frac{P}{W} \times 100 \quad \frac{24.3}{148.3} \times 100 \quad 16.39\%</math></p>
<p>____ 7. Given the IUPAC name, I can write the chemical formula for binary compounds.</p>	<p>Write the chemical formula for the following compounds: sodium bromide <u>NaBr</u> lithium selenide <u><math>Li_2Se</math></u> iron (III) fluoride <u><math>FeF_3</math></u></p>

<p>8. Given the chemical formula, I can write the IUPAC name for binary compounds.</p>	<p>Write the IUPAC name for the following compounds:</p> <p>CrO <u>Chromium (II) oxide</u></p> <p>MgI<sub>2</sub> <u>Magnesium iodide</u></p>
<p>9. Given the IUPAC name, I can write the chemical formula for ternary compounds.</p>	<p>Write the chemical formula for the following compounds:</p> <p>calcium oxalate <u>CaC<sub>2</sub>O<sub>4</sub></u></p> <p>nickel (II) thiosulfate <u>NiS<sub>2</sub>O<sub>3</sub></u></p>
<p>10. Given the chemical formula, I can write the IUPAC name for ternary compounds.</p>	<p>Write the IUPAC name for the following compounds:</p> <p>Sn(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>2</sub> <u>Tin (II) Acetate</u></p> <p>(NH<sub>4</sub>)<sub>3</sub>PO<sub>4</sub> <u>Ammonium phosphate</u></p>
<p>11. I can define empirical formula, molecular formula, and hydrate.</p>	<p><b>Definitions:</b></p> <p>empirical formula <u>The simplest form of a formula (lowest terms)</u></p> <p>molecular formula <u>Shows exact # of atoms in compound</u></p> <p>hydrate <u>ionic compound w/ H<sub>2</sub>O w/in crystal structure</u></p>
<p>15. Given the empirical formula and the molar mass, I can determine the molecular formula of a compound.</p>	<p>What is the molecular formula of a compound that has the empirical formula of CH and a molar mass of 78 g/mol.</p> <p>① gfm  C: (1)(12)  H: (1)(1)  <u>13 g/mol</u></p> <p>② <math>\frac{78}{13} = 6</math></p> <p>③ (CH)<sub>6</sub>  <u>C<sub>6</sub>H<sub>6</sub></u></p>