**Molecular Formula**

- represents the ___________ number of ___________ of each ___________ in the ___________
- not necessary for ___________ ____________
- necessary for ___________ ____________

The molecular formula for water is ____________, and empirical formula is also ____________.
The molecular formula for hydrogen peroxide is ____________, and empirical formula is ____________.

**Example Problem**
The empirical formula for glucose is \( \text{CH}_2\text{O} \).

a) If the molar mass is 180.0 g/mole, find the molecular formula.

b) If the molar mass is ______ g/mole, find the molecular formula.

**Problem Set One** (work on your own paper)

<table>
<thead>
<tr>
<th>empirical formula</th>
<th>molar mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>( \text{CH} )</td>
<td>________ g/mol</td>
</tr>
<tr>
<td>( \text{NO}_2 )</td>
<td>________ g/mol</td>
</tr>
<tr>
<td>( \text{C}_3\text{H}_8 )</td>
<td>________ g/mol</td>
</tr>
</tbody>
</table>

Ex. Problem: Find the molecular formula for a compound with- ________ g N ________ g O molar mass ________ g/mol
Hydrates

- __________ with ___________ molecules adhering to the ___________ or ___________

- $\text{Na}_2\text{CO}_3 \cdot ____\text{H}_2\text{O}$
  indicates _______ ________ molecules adhering to each _________ ________ of sodium carbonate

- mass of _________ = mass of ____________ compound minus mass of _________ compound

Example Problems
Determine the formula of hydrated barium chloride from this data:
initial mass of hydrated compound = 1.373g
mass after heating = 1.175g

Determine the formula for the hydrate that is _________ % $\text{CaSO}_3$
and _________ % $\text{H}_2\text{O}$. (work on back)

The Chemistry Quiz

CR1. CR2. 1. 2. 3. 4. 5.

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