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| **Variables** | **Simple Formulas Continued** |
| D = density = massV = volume K = kelvinP = pressure R = gas constantT = temperature M = molarityn = number of moles N = normalityq = quantity of heat energyCp = specific heat Hv = heat of vaporizationHf = heat of fusionKw = equilibrium constant  for the ionization of water**Conversions**1 ATM = 760 mmHg = 760 torr = 101.3 kPa1 cm3 = 1 mL**For Water:** 1 Kg = 1 L 1 g = 1 mLSTP: 1 ATM & 273.1 K AT STP: 1 Mol Gas = 22.4 L**Simple Formulas***Oxidation Number:**0= Subscript of Metal (X) + Subscript non-metal (Ox #)* |  x 100Percent Yield = Lab Value  Theoretical or expected X 100Percent Error = X 100Moles = M X V*Normality (N) = Molarity \* # of Equivalence*   |
| **Simple Mole Map:**   **÷** Molar Mass X 6.022 x1023 atoms/molecules**Grams Moles Atoms/Molecules**  X Molar Mass **÷** 6.022 x1023 atoms/molecules |
|  **Empirical Formula: Formula for a Hydrate**1. **Calculate moles 1. Find Grams of anhydrous material and water**
2. **Find Ratio of moles 2. Calculate moles of each**
3. **Use whole number as subscripts 3. Find Ratio of moles use as multiplier**
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