

**Table T**  
**Important Formulas and Equations**

<b>Density</b>	$d = \frac{m}{V}$	$d$ = density $m$ = mass $V$ = volume
<b>Mole Calculations</b>	number of moles = $\frac{\text{given mass}}{\text{gram-formula mass}}$	
<b>Percent Error</b>	% error = $\frac{\text{measured value} - \text{accepted value}}{\text{accepted value}} \times 100$	
<b>Percent Composition</b>	% composition by mass = $\frac{\text{mass of part}}{\text{mass of whole}} \times 100$	
<b>Concentration</b>	$\times$ parts per million = $\frac{\text{mass of solute}}{\text{mass of solution}} \times 1\,000\,000$	
	$\times$ molarity = $\frac{\text{moles of solute}}{\text{liter of solution}}$	
<b>Combined Gas Law</b>	$\frac{P_1V_1}{T_1} = \frac{P_2V_2}{T_2}$	$P$ = pressure $V$ = volume $T$ = temperature
<b>Titration</b>	$M_A V_A = M_B V_B$	$M_A$ = molarity of $H^+$ $M_B$ = molarity of $OH^-$ $V_A$ = volume of acid $V_B$ = volume of base
<b>Heat</b>	$q = mC\Delta T$ $q = mH_f$ $q = mH_v$	$q$ = heat $m$ = mass $C$ = specific heat capacity $\Delta T$ = change in temperature $H_f$ = heat of fusion $H_v$ = heat of vaporization
<b>Temperature</b>	$K = ^\circ C + 273$	$K$ = kelvin $^\circ C$ = degree Celsius