

## Important Formulas from Grade 11

Formula	Variables and Units	Applies to
$n = \frac{m}{M}$	n = moles (mol) m = mass (g) M = molar mass ( $\frac{g}{mol}$ )	solids
$n = \frac{N}{N_a}$	n = moles (mol) N = number of particles (atoms/molecules/formula units) N <sub>a</sub> = Avogadro's constant	Solids/liquids/gases
$C = \frac{n}{V}$	n = moles (mol) C = amount concentration ( $\frac{mol}{L}$ ) V = volume (L)	solutions
$PV = nRT$	P = pressure (kPa) V = volume (L) n = moles (mol) R = universal gas constant ( $8.314 \frac{kPa \cdot L}{mol \cdot K}$ ) T = temperature (K)	gases