

Physics Equations Sheet

GCSE Further Additional Science/Physics (FAS3 and PH3)

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| $s = v \times t$ | <i>s</i> distance <i>v</i> speed <i>t</i> time |
| refractive index = $\frac{\sin i}{\sin r}$ | <i>i</i> angle of incidence <i>r</i> angle of refraction |
| magnification = $\frac{\text{image height}}{\text{object height}}$ | |
| $P = \frac{1}{f}$ | <i>P</i> power <i>f</i> focal length |
| refractive index = $\frac{1}{\sin c}$ | <i>c</i> critical angle (Higher Tier only) |
| $T = \frac{1}{f}$ | <i>T</i> periodic time <i>f</i> frequency |
| $M = F \times d$ | <i>M</i> moment of the force <i>F</i> force <i>d</i> perpendicular distance from the line of action of the force to the pivot |
| $P = \frac{F}{A}$ | <i>P</i> pressure <i>F</i> force <i>A</i> cross-sectional area |
| $\frac{V_p}{V_s} = \frac{n_p}{n_s}$ | <i>V_p</i> potential difference across the primary coil <i>V_s</i> potential difference across the secondary coil <i>n_p</i> number of turns on the primary coil <i>n_s</i> number of turns on the secondary coil |
| $V_p \times I_p = V_s \times I_s$ | <i>V_p</i> potential difference across the primary coil <i>I_p</i> current in the primary coil <i>V_s</i> potential difference across the secondary coil <i>I_s</i> current in the secondary coil |