QCE Physics Formula and Data Book

Original worked revision examples with notes on units and assumptions.

Use the board PDF below for the official sheet. Coverage of examples varies by subject.

Official reference material

QCAA Physics formula and data book

What to work out beyond the sheet

Choose a model and identify the direction of vector quantities before looking up a formula.

Formulas and worked examples

Motion · centripetal acceleration

Formula or reference: $a = v^2/r$

Units and conditions: Use m/s and m. Acceleration points towards the centre.

Worked example: A cyclist at 9.0 m/s on a path of radius 18 m has centripetal acceleration 4.5 m/s^2.

Light · photon energy

Formula or reference: $E = hf$

Units and conditions: Use h in J s and f in Hz for energy in J.

Worked example: A frequency of 7.50×10^{14} Hz gives about 4.97×10^{-19} J per photon.