SACE Stage 2 Physics Formula Sheet

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

SACE Board 2025 Physics exam PDF, formula sheet on page 41

What to work out beyond the sheet

Decide whether the question asks for a change in momentum or the final momentum. They coincide if the object starts from rest.

Formulas and worked examples

Motion · impulse

Formula or reference: For a constant net force, $J = F\Delta t = \Delta p$.

Units and conditions: Use N and s for impulse in N s. Include its direction.

Worked example: A 6.0 N net force east for 0.30 s changes momentum by 1.8 kg m/s east.

Light · energy from wavelength

Formula or reference: $E = hc/\lambda$

Units and conditions: Use wavelength in metres to calculate energy in joules.

Worked example: A 500 nm photon has energy about 3.97×10^{-19} J.