QCE Chemistry 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 Chemistry formula and data book

What to work out beyond the sheet

Use the balanced chemical equation to connect the amount you calculated to the amount of another reactant or product.

Formulas and worked examples

Solutions · amount of solute

Formula or reference: n = cV

Units and conditions: Use c in mol/L and solution volume V in litres.

Worked example: A 35.0 mL aliquot of 0.240 mol/L solution contains 0.00840 mol.

Gases · ideal gas equation

Formula or reference: pV = nRT

Units and conditions: Use kelvin and matching pressure and volume units for the chosen R.

Worked example: At 100 kPa and 310 K, 0.300 mol of ideal gas occupies about 7.73 L using R = 8.314 kPa L/(mol K).