General Chemistry I

FINAL EXAM REVIEW SHEETS / 8 pages / 16 worked ideas

01 MOLES FIRST

Convert given units to moles before using a reaction ratio.

Moles from mass

RULE

$$n = \frac{m}{M}$$

DECISION CUE / TRAP

Molar mass converts grams to moles.

TRY IT

$$m = 18\,\text{g}, \quad M = 18\,\text{g/mol}$$

WORKED STEP

$$n = 18/18 = 1\,\text{mol}$$

COVER & RECALL / REDO THE EXAMPLE WITHOUT LOOKING

SAMPLE

Particles from moles

RULE

$$N = nN_A$$

DECISION CUE / TRAP

Use Avogadro's constant per mole.

TRY IT

$$n = 2\,\text{mol}, \; N_A = 6.022 \times 10^{23}\,\text{mol}^{-1}$$

WORKED STEP

$$N = 2(6.022 \times 10^{23}) = 1.2044 \times 10^{24}$$

COVER & RECALL / REDO THE EXAMPLE WITHOUT LOOKING

Watermarked sample - full pack has 8 pages and 16 worked ideas