3 Formulae and equations – Part 1 — Answers

Answers

Work through these after trying the questions yourself.

3.1 The molecular formula gives the actual number of each atom in a molecule; the empirical formula gives the simplest whole-number ratio of the atoms.
3.2 $MgCl_2$ (one Mg^{2+} needs two Cl^- to balance the charge).
3.3 $2H_2 + O_2 \rightarrow 2H_2O$.
3.4 Aqueous — dissolved in water.
3.5 $Zn(s) + 2HCl(aq) \rightarrow ZnCl_2(aq) + H_2(g)$.

3.6 $4Fe + 3O_2 \rightarrow 2Fe_2O_3$ (Fe: 4 each side; O: 6 each side).