Chapter Summary Worksheet

Chapter 3
Formulae, equations and moles

Print out and complete this worksheet to generate a summary for Chapter 3.

1 The formula of aluminium chloride is

- ☐ **A** AlCl
- ☐ **B** $AlCl_3$
- ☐ **C** Al_3Cl_2
- ☐ **D** Al_2Cl_3

2 The molar mass/g mol^{-1} (to 2 significant figures) of calcium hydroxide, $Ca(OH)_2$, is

- ☐ **A** 34
- ☐ **B** 57
- ☐ **C** 58
- ☐ **D** 74

3 The molar mass/g mol^{-1} of hydrated sodium carbonate, $Na_2CO_3.10H_2O$, is

- ☐ **A** 124.0
- ☐ **B** 142.0
- ☐ **C** 232.0
- ☐ **D** 286.0

4 The formula of phosphorus(v) oxide is

- ☐ **A** PO_5
- ☐ **B** P_2O_5
- ☐ **C** P_5O_2
- ☐ **D** P_5O

5 Which equation does **not** balance?

- ☐ **A** $3Ca^{2+}(aq) + 2PO_4^{3-}(aq) \rightarrow Ca_3(PO_4)_2(s)$
- ☐ **B** $2Pb(NO_3)_2 \rightarrow 2PbO + 4NO_2 + O_2$
- ☐ **C** $Fe^{3+} + Sn^{2+} \rightarrow Fe^{2+} + Sn^{4+}$
- ☐ **D** $C_2H_6 + 3\frac{1}{2}O_2 \rightarrow 2CO_2 + 3H_2O$

6 Sodium hydroxide reacts with sulfuric acid according to the equation:

$$2NaOH + H_2SO_4 \rightarrow Na_2SO_4 + 2H_2O$$

The number of moles of sodium hydroxide in 25 cm^3 of 0.10 mol dm^{-3} sodium hydroxide solution is

- ☐ **A** 0.0025
- ☐ **B** 0.0050
- ☐ **C** 2.5
- ☐ **D** 5.0

© Philip Allan Updates