

Solutions

Each answer shows the steps, then the **result**.

2.1

- 2+

2.2

- basic

3.1 B

- A basic oxide XO (+2) and metallic conductivity point to Group 2

3.2 A

- Reactivity decreases down Group 17

3.3

(a)

- a non-metal; its oxide and chloride are acidic/covalent and the chloride hydrolyses — typical of non-metals

(b)

- the right-hand side (non-metal region) of the Periodic Table

3.4

- any two: it is a (very) reactive metal; forms a +1 ion; has a basic oxide; reacts vigorously with water; larger atom / lower melting point than sodium