

Solutions

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

2.1

- It decreases

2.2

- Fluorine

2.3

- It decreases

2.4

- $\text{Na} > \text{Si} > \text{Cl}$

3.1 B

- the atomic radius decreases across a period

3.2 A

- fluorine is the most electronegative

3.3

(a)

- Sodium

(b)

- Chlorine has more protons pulling the same shell in more tightly, so it is smaller

3.4

(a)

- Ionization energy decreases down the group

(b)

- Outer electrons are farther out and shielded by inner shells, so they are easier to remove