

Solutions

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

2.1

- London dispersion forces

2.2

- Hydrogen bonding

2.3

- London dispersion forces only

3.1 B

- H bonded to N, O, or F

3.2

(a)

- H_2O : hydrogen bonding; H_2S : dipole-dipole

(b)

- H_2O — its hydrogen bonds are stronger than the dipole-dipole forces in H_2S , so more energy is needed to boil it

3.3

- Br_2 has more electrons than Cl_2 , so its London dispersion forces are stronger, giving a higher boiling point