Solutions

Marking: **M1** a correct method, **A1** the correct answer.

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

2.1

- change each to a decimal: $\frac{2}{3} = 0.667$, $\frac{5}{8} = 0.625$

$$\mathbf{0.6},\ \mathbf{0.62},\ \mathbf{\frac{5}{8}},\ \mathbf{\frac{2}{3}}$$

2.2

- -7 lies to the right of -9 on the number line

$$-7 > -9$$

2.3

- $\frac{3}{8} = 0.375$ and $0.375 < 0.4$

$$\frac{3}{8} < 0.4$$

2.4

- $\leqslant$ includes -3, but $<$ excludes 2

$$\mathbf{-3},\ \mathbf{-2},\ \mathbf{-1},\ \mathbf{0},\ \mathbf{1}$$

2.5

- line up the decimal places: 0.700, 0.070, 0.707, 0.770; the largest is **0.77**

3.1

- decimals: $\frac{3}{8} = 0.375$, $37\% = 0.37$, $\frac{2}{5} = 0.4$

$$\mathbf{37}\%,\ \mathbf{\frac{3}{8}},\ \mathbf{0.38},\ \mathbf{\frac{2}{5}}$$

3.2

(a)

- the more negative the temperature, the colder it is

$$\mathbf{-8},\ \mathbf{-3},\ \mathbf{-0.5},\ \mathbf{0},\ \mathbf{5}$$

(b)

- -8 lies further left than -3

$$-8 < -3$$

3.3

- as decimals: -2.5, $-2.333\ldots$, -2.45, -2.4; the most negative is the smallest

$$\mathbf{-2.5},\ \mathbf{-2.45},\ \mathbf{-2\frac{2}{5}},\ \mathbf{-2\frac{1}{3}}$$

3.4

- $2^{-1} = 0.5$, $0.3^2 = 0.09$, $\sqrt{0.16} = 0.4$, $\frac{1}{3} = 0.333\ldots$

$$\mathbf{0.3^2},\ \mathbf{\frac{1}{3}},\ \mathbf{\sqrt{0.16}},\ \mathbf{2^{-1}}$$