## Solutions

Award method and answer marks as indicated; accept equivalent correct methods.

**2.1**

- Left to right on the number line: $-7, -3, 0, 2$.

**2.2**

- $3/5 = 0.60$, so $3/5 < 0.62$.

**2.3**

- Convert to decimals 0.48, 0.45, 0.50: $45\%, 0.48, 1/2$.

**2.4**

- Include $-2$ but exclude 3: $-2, -1, 0, 1, 2$.

**3.1**

(a)

- Smaller time is faster: **12.08 s, 12.18 s, 12.8 s**.

(b)

- At most includes the boundary: $t \leq 12.18$ (time in seconds).

(c)

- **The 12.08 s and 12.18 s runners qualify**; $\leq$ includes the exact limit.

**3.2**

(a)

- Use equal decimal places to compare.
- Coldest to warmest: **−2.5, −2.15, −2.05, −2.005** °C.
- The warmest is **−2.005 °C**, nearest to zero.

(b)

- Accept **−2.5, −2.15 and −2.05 °C**.
- Reject **−2.005 °C**, which is greater than −2.05 °C.
- The lower endpoint −2.5 °C is included because the symbol is $\leq$.

**3.3**

- As decimals: $-\frac{1}{3} = -0.333\ldots$, which is less than $-0.33$; $\frac{1}{3} = 0.333\ldots$, which is more than 0.3.
- **−3**, $\mathbf{-\frac{1}{3}}$, **−0.33**, **0.3**, $\mathbf{\frac{1}{3}}$.

**3.4**

- $-4$ is excluded ($<$) and 1 is included ($\leqslant$).
- **−3**, **−2**, **−1**, **0**, **1**.