

- 1 At noon the temperature was  $4^{\circ}\text{C}$ .  
At midnight the temperature was  $-5.5^{\circ}\text{C}$ .

Work out the difference in temperature between noon and midnight.

$$\begin{aligned} & 4 - (-5.5) \\ &= 4 + 5.5 \\ &= 9.5 \end{aligned}$$

Answer .....  $9.5$  .....  $^{\circ}\text{C}$  [1]

- 2 Use your calculator to work out  $\sqrt{10 + 0.6 \times (8.3^2 + 5)}$ .

$$\begin{aligned} & 7.371160017... \\ & \approx 7.37 \end{aligned}$$

Answer .....  $7.37$  ..... [1]

- 3 Write 270 000 in standard form.

$$2.7 \times 10^5$$

Answer .....  $2.7 \times 10^5$  ..... [1]

- 4 Expand and simplify.

$$\begin{aligned} & x(2x + 3) + 5(x - 7) \\ & 2x^2 + 3x + 5x - 35 \\ & 2x^2 + 8x - 35 \end{aligned}$$

Answer .....  $2x^2 + 8x - 35$  ..... [2]

- 5 Paul and Sammy take part in a race.  
The probability that Paul wins the race is  $\frac{9}{35}$ .  
The probability that Sammy wins the race is 26%.

Who is more likely to win the race?  
Give a reason for your answer.

$$\text{Paul: } \frac{9}{35} \times 100\% = 25.7\%$$

$$\text{Sammy: } 26\%$$

Answer ..... Sammy ..... because ..... greater probability ..... [2]