

1.17 (a) $4 + 3(n - 1) = 52$ (M1)(A1)

Note: Award (M1) for substitution into the formula of the n th term of an arithmetic sequence, (A1) for correct substitution.

$n = 17$ (A1) (C3)
[3 marks]

(b) $\frac{24}{2}(2 \times 4 + 23 \times 3)$ OR $\frac{24}{2}(4 + 73)$ (M1)(A1)(ft)

Notes: Award (M1) for substitution into the sum of the first n terms of an arithmetic sequence formula, (A1)(ft) for their correct substitution, consistent with part (a).

924 (A1)(ft) (C3)

Note: Follow through from part (a).

[3 marks]

Total [6 marks]

6. (a) 9 (cm) (A1) (C1)
[1 mark]

(b) 40 (leaves) (A1) (C1)
[1 mark]

(c) (i) $(200 \times 0.90 \Rightarrow) 180$ or equivalent (M1)

Note: Award (M1) for a horizontal line drawn through the cumulative frequency value of 180 and meeting the curve (or the corresponding vertical line from 10.5 cm).

$(k \Rightarrow) 10.5$ (cm) (A1) (C2)

Note: Accept an error of ± 0.1 .

(ii) $\left| \frac{9.5 - 10.5}{10.5} \right| \times 100\%$ (M1)

Notes: Award (M1) for their correct substitution into the percentage error formula.

9.52 (%) (9.52380... (%)) (A1)(ft) (C2)

Notes: Follow through from their answer to part (c)(i).
Award (A1)(A0) for an answer of -9.52 with or without working.

[4 marks]

Total [6 marks]