

Solutions

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

2.1

- $N = 2.5(8) = \mathbf{20}$ books.

2.2

- $\theta = (15/60)360 = \mathbf{90^\circ}$.

2.3

- **Stem 1: leaves 4,7,7; stem 2: leaves 1,3; key $1|4 = 14$.**

2.4

- Add components: $H = 12 + 9 = \mathbf{21}$ units.

3.1

(a)

- $N = 40$; $\theta_W = 108^\circ$, $\theta_C = 72^\circ$, $\theta_B = 180^\circ$.

(b)

- **Three labelled sectors of $108^\circ, 72^\circ, 180^\circ$, drawn with a protractor.**

(c)

- **Paired bars of heights (12,10), (8,14), (20,16)** for walk, cycle, bus; equal widths, common frequency scale and a class legend.

3.2

(a)

- One symbol represents $k = 30/3.75 = \mathbf{8}$ pupils.
- Total is 60 pupils, so angles are **$180^\circ, 120^\circ, 60^\circ$** for walkers, bus, cyclists respectively.
- Their sum is 360° .

(b)

- Stem 1 has ordered leaves **2, 2, 7, 7**; stem 2 has **1, 3**.
- Key **$1 | 2 = 12$ minutes**.
- Middle values are 17 and 17, so median **17 minutes**.