

Fully-Worked Solutions

PRACTICE 12

Section A

1 Answer: D

$$2 \quad \frac{14 + 17 + 9}{14 + 17 + 9 + 6 + 4} \times 100\% = 80\%$$

Answer: D

$$3 \quad \frac{x + 8}{22 + 25 + 29 + x + 8} = \frac{24}{100}$$

$$\frac{x + 8}{84 + x} = \frac{6}{25}$$

$$25x + 200 = 504 + 6x$$

$$19x = 304$$

$$x = 16$$

Answer: B

$$4 \quad \frac{5}{10 + 7 + 8 + 5} = \frac{1}{6}$$

Answer: A

$$5 \quad \frac{75}{360} \times 144 = 30$$

Answer: C

6 Answer: C

$$7 \quad 184 \text{ cm} - 142 \text{ cm} = 42 \text{ cm}$$

Answer: D

$$8 \quad \frac{10}{20 + 10 + 15 + 25 + 30} \times 100\% = 10\%$$

Answer: A

9 Answer: A

Section B

- 1 (a) 40 (b) 12 – 14
(c) 0 (d) 26

$$2 \text{ (a)} \quad \frac{5}{24} \times 360^\circ = 75^\circ \quad [\times]$$

$$\text{(b)} \quad \frac{4}{24} \times 360^\circ = 60^\circ \quad [\checkmark]$$

$$\text{(c)} \quad \frac{8}{24} \times 360^\circ = 120^\circ \quad [\times]$$

$$\text{(d)} \quad \frac{7}{24} \times 360^\circ = 105^\circ \quad [\checkmark]$$

3	Score	1	2	3	4	5
	Frequency	4	6	8	4	2

Section C

1 (a)

Pie chart

Histogram

Dot plot

Frequency polygon

Bar chart

$$\text{(b) (i)} \quad x + 4 + 3x + 2x + 15 + x + 4 + 1 = 80$$

$$7x = 56$$

$$x = 8$$

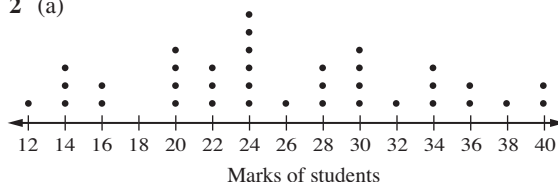
$$\text{(ii)} \quad \frac{8 + 4 + 1}{80} \times 100 = 16.25\%$$

(c) (i) January

$$\text{(ii)} \quad 20 - 16 = 4$$

$$\text{(iii)} \quad \frac{14 + 16}{12 + 18 + 16 + 20 + 14 + 16} \times 100 = 31.25\%$$

2 (a)



$$\text{(b) Blue} = 54^\circ$$

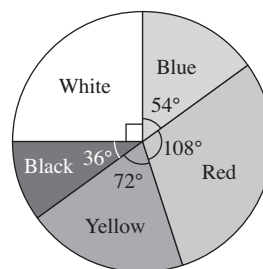
$$\text{Red} = \frac{300}{1\,000} \times 360^\circ = 108^\circ$$

$$\text{Yellow} = \frac{200}{1\,000} \times 360^\circ = 72^\circ$$

$$\text{Black} = \frac{100}{1\,000} \times 360^\circ = 36^\circ$$

$$\text{White} = \frac{250}{1\,000} \times 360^\circ = 90^\circ$$

Number of Shirts Made



(c) (i) Year 2018

(ii) Year 2012

$$\text{(iii)} \quad 700 - 100 = 600$$