

Processing, Representing and Interpreting Data

ANSWERS

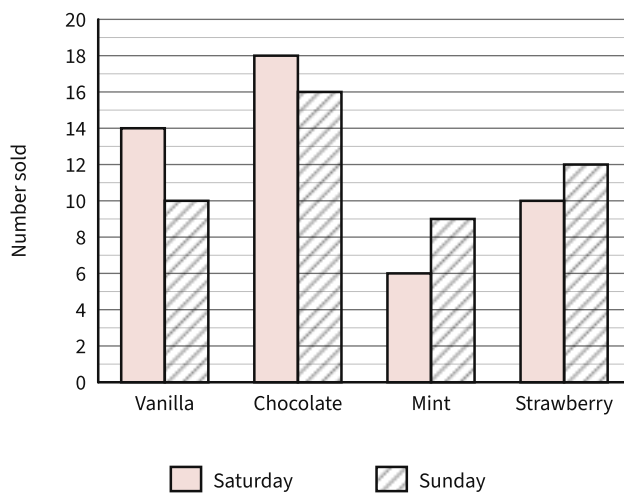
Calculator | 30 minutes | Total marks: 25

Name

Class

1

The dual bar chart shows the ice creams sold at a kiosk on Saturday and on Sunday.



- (a) How many vanilla ice creams were sold on Saturday?

Answer 14 (1) [1 mark]

- (b) Which flavour has the biggest difference between Saturday and Sunday?

Answer Vanilla (1) [1 mark]

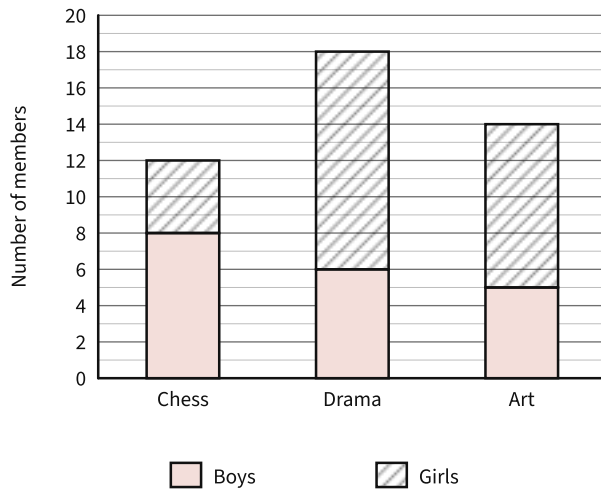
- (c) Work out the total number of ice creams sold on Sunday.

$$10 + 16 + 9 + 12 (1)$$

Answer 47 (1) [2 marks]

2

The composite bar chart shows the members of three school clubs.



- (a) How many girls are members of the Chess club?

Answer 4 (1) [1 mark]

- (b) Which club has the most members?

Answer Drama (1) [1 mark]

- (c) What fraction of the members of the Drama club are boys?

Give your answer in its simplest form.

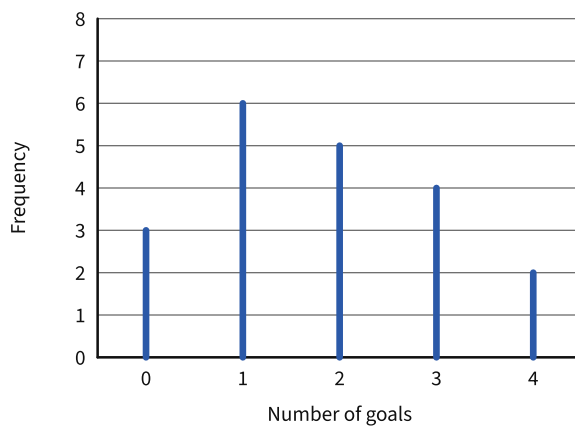
$$\frac{6}{18} (1)$$

Answer $\frac{1}{3}$ (1) [2 marks]

3

The table shows the number of goals scored in each of 20 hockey matches.

Number of goals	0	1	2	3	4
Frequency	3	6	5	4	2



- (a) Draw a vertical line graph for this information.

Heights (1) Lines, not bars (1) [2 marks]

- (b) Write down the mode.

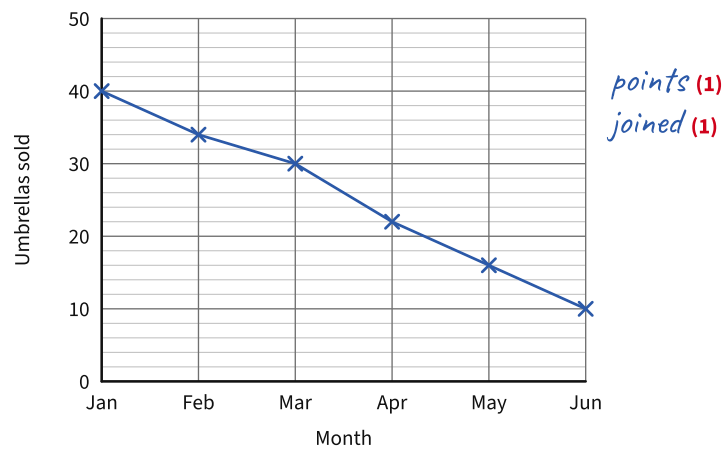
Answer 1 (1) goal [1 mark]

4

The table shows the number of umbrellas a shop sold each month.

Month	Jan	Feb	Mar	Apr	May	Jun
Umbrellas sold	40	34	30	22	16	10

(a) Draw a time series graph for this information.



[2 marks]

(b) Describe the trend.

The number sold goes down each month (1)

[1 mark]

(c) Explain why the graph should not be used to predict the number sold in December.

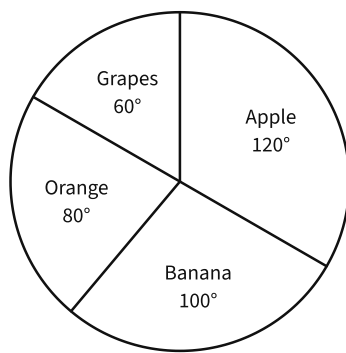
December is a long way past the data, the trend may not carry on (1)

[1 mark]

5

90 people are asked to choose their favourite fruit.

The pie chart shows the results.



(a) How many people chose banana?

$$\frac{100}{360} \times 90 \text{ (1)}$$

Answer 25 (1) [2 marks]

(b) What fraction of the people chose apple?

Give your answer in its simplest form.

Answer $\frac{1}{3}$ (1) [1 mark]

6

60 students are asked to choose their favourite sport.

The table shows the results.

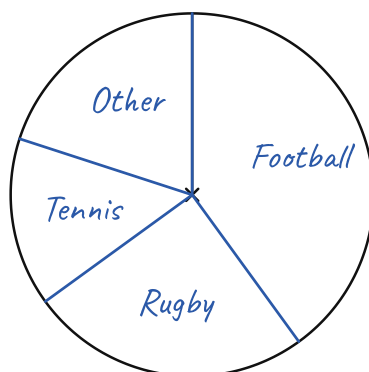
Sport	Frequency	Angle
Football	24	144°
Rugby	15	90°
Tennis	9	54°
Other	12	72° (1)(1)

(a) Complete the table to show the angle for each sport in a pie chart.

$$360 \div 60 = 6^\circ \text{ for each student}$$

[2 marks]

(b) Draw the pie chart.



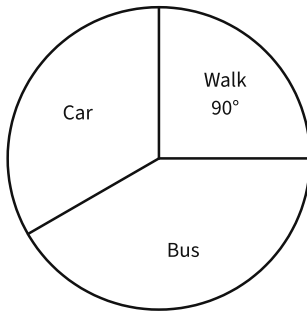
two angles drawn correctly (1)

all correct with labels (1)

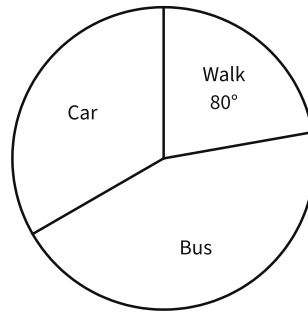
[2 marks]

7

The pie charts show how the students in Year 7 and in Year 8 travel to school.



Year 7 (120 students)



Year 8 (180 students)

Sam says, “More students walk to school in Year 7 than in Year 8 because the Year 7 sector is bigger.”

Is Sam correct?

You **must** show your working.

$$\text{Year 7: } \frac{90}{360} \times 120 = 30 \text{ (1)}$$

$$\text{Year 8: } \frac{80}{360} \times 180 = 40 \text{ (1)}$$

No, more students walk in Year 8 (1)

[3 marks]

Question	Topic	RAG
1	I can read a dual bar chart	
2	I can read a composite bar chart	
3	I can draw a vertical line graph	
4	I can draw a time series graph and describe the trend	
5	I can work out frequencies from a pie chart	
6	I can draw a pie chart	
7	I can compare two pie charts with different totals	