Mathletics

Series F Teacher

Statistics

Series F – Statistics

Contents

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Series F – Statistics

Pages 1–3

1a Friday

b Wednesday

c 70

d 45

e 15

2a 1,150

b 1,900

3a 20

b 80

c 70

d Week 3

e 120

f Week 2 and Week 4

g 40

h 450

4a 10

b 225

5a Pablo

b Heba

c 48

d 40

e 246

f £492

6

Pupil	Pictogram
Ethan	
Claire	
Pablo	
Heba	
Reece	
Mia	
Rania	
Hassan	

a £276

b Pablo

Pages 4–6

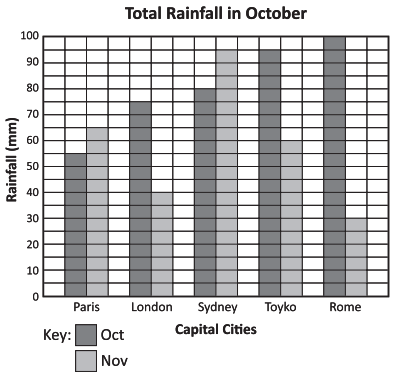
1a Rome

b 100 mm

c London and Sydney

d 45 mm

2

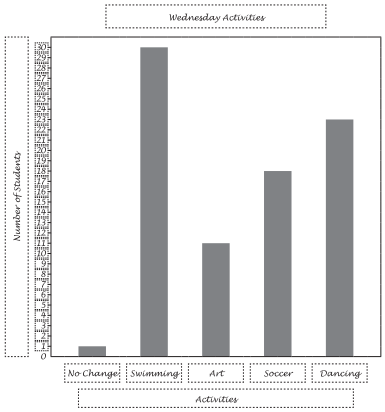


a No—add a key to show which bar is which.

b Yes, the title to: Total Rainfall in October and November.

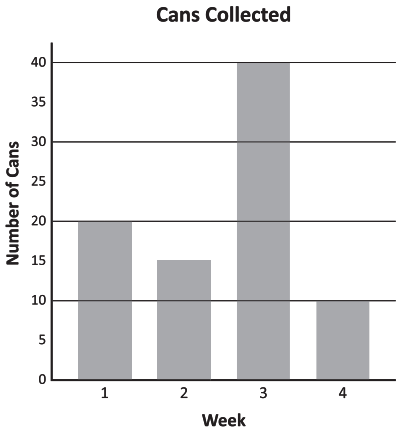
3 Answers will vary.

4a



b Answers will vary.

5a

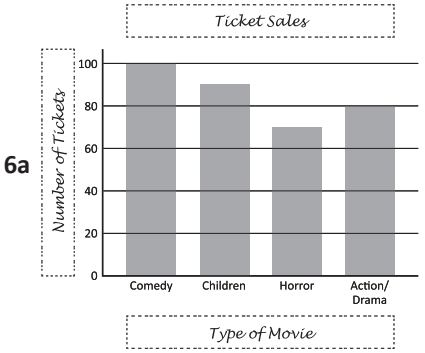


b Week 3 because the most cans were collected.

c 85

d £4.25

6a



b Answers will vary.

Pages 7–8

1a

b Meat

2a £40

b £120

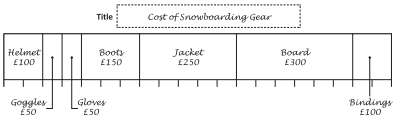
c £80

d $\frac{4}{9}$ of £360 = £160

or

£360 – £200 = £160

3



Pages 9–10

1a 6,000 km²

b 11,000 km²

c 2006

d 5,000 km²

e 8,000 km²

f 9,000 km²

2a No

b No

c 5°C

d 10°C

e 6 mins

3a 50 metres

b 15 seconds

c 47/48 metres

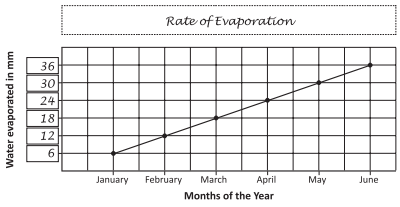
d 70 metres

Series F – Statistics

Pages 11–12

1a 12, 18, 24, 30, 36

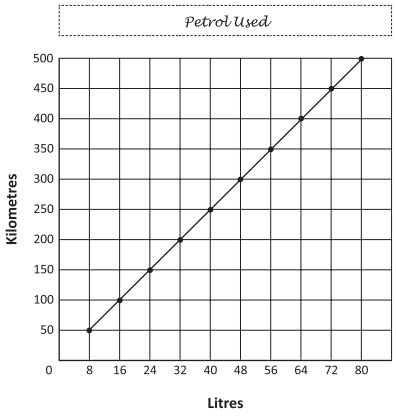
b Answers may vary.
Sample answer:



c Answers may vary.

2a 100, 150, 200, 250, 200, 350, 400, 450, 500

b Answers may vary. Sample answer:



c 200 km

d 72 litres

e 75 km

f 600 km

g 2

Pages 13–14

1a 8 am

b 1 hour

c 100 km

d 75 km/hr

e Having lunch or taking a break.

f 7 hours

2a 5 am

b 6 am, 7 am

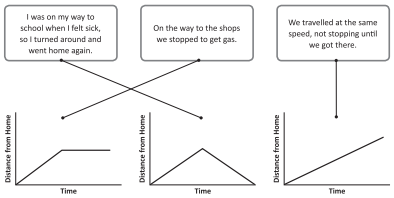
c 45

d 8 am

e 10 am

f 11 am

3

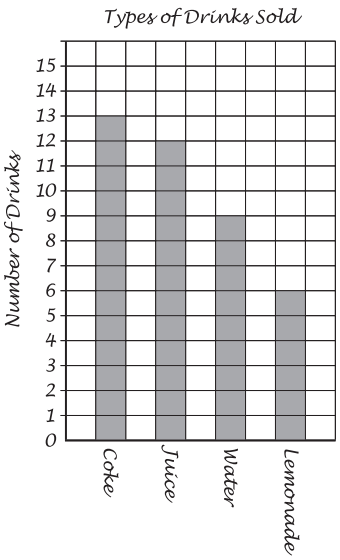


Page 15

1a

Type of Drink	Tally	Frequency
Coke	𝍸 𝍸 | | |	13
Juice	𝍸 𝍸 | | |	12
Water	𝍸 | | | |	9
Lemonade	𝍸 |	6

b



Pages 17–19

1a 13, 4, 7, 11, 5

$= \frac{13 + 4 + 7 + 11 + 5}{5}$

$= 40 \div 5$

$= \underline{\quad 8 \quad}$

b 9, 13, 5

$= \frac{9 + 13 + 5}{3}$

$= 27 \div 3$

$= 9$

c 3, 5, 9, 2, 6

$= \frac{3 + 5 + 9 + 2 + 6}{5}$

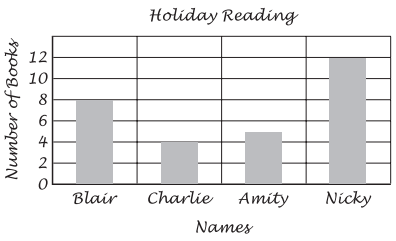
$= 25 \div 5$

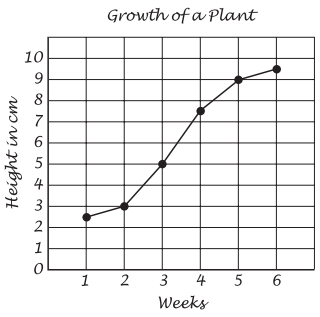
$= 5$

Pages 16–17

1 Bar chart;
Divided bar graph;
Pictogram
Line graph

2





Pages 18–20

What to do

Betty Balaclava

Date of birth: 13.05.84

Tattoos

Blonde hair

160–169 cm tall

What to do next

Answers will vary.

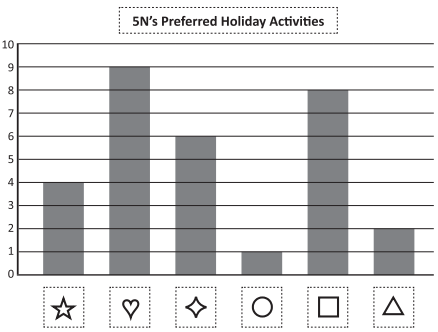
Page 21

What to do

Answers will vary.

Page 22

What to do



Pictograms

Name _____

1 **Jamila's Juice Bar kept a tally of all the juices they sold during Happy Hour on Saturday.**

a Complete the total column:

b How many juices were sold altogether?

Juice	Tally	Total
Berry Boost	𝍸 𝍸 𝍸 |	
Banana Blast	𝍸 𝍸 ||	
Mango Tango	𝍸 |||	
Strawberry Surprise	𝍸 𝍸 𝍸 𝍸	

2 **Draw a pictogram using the information shown in the table (above). Don't forget the key.**

Juice	Sales
Berry Boost	
Banana Blast	
Mango Tango	
Strawberry Surprise	
	Key: =

3 **Look carefully at this pictogram. It shows how many hamburgers were sold at Tyler's Takeaway last week.**

a If there were 25 hamburgers sold on Monday, what is the key? Fill it in.

b How many hamburgers were sold on Monday and Tuesday?

c How many more hamburgers were sold on Friday than Wednesday?

d How many hamburgers were sold altogether?

Hamburgers Sold	
Monday	🍔 🍔 🍔
Tuesday	🍔 🍔
Wednesday	🍔 🍔
Thursday	🍔 🍔
Friday	🍔 🍔 🍔

Key: 🍔 = _____ hamburgers

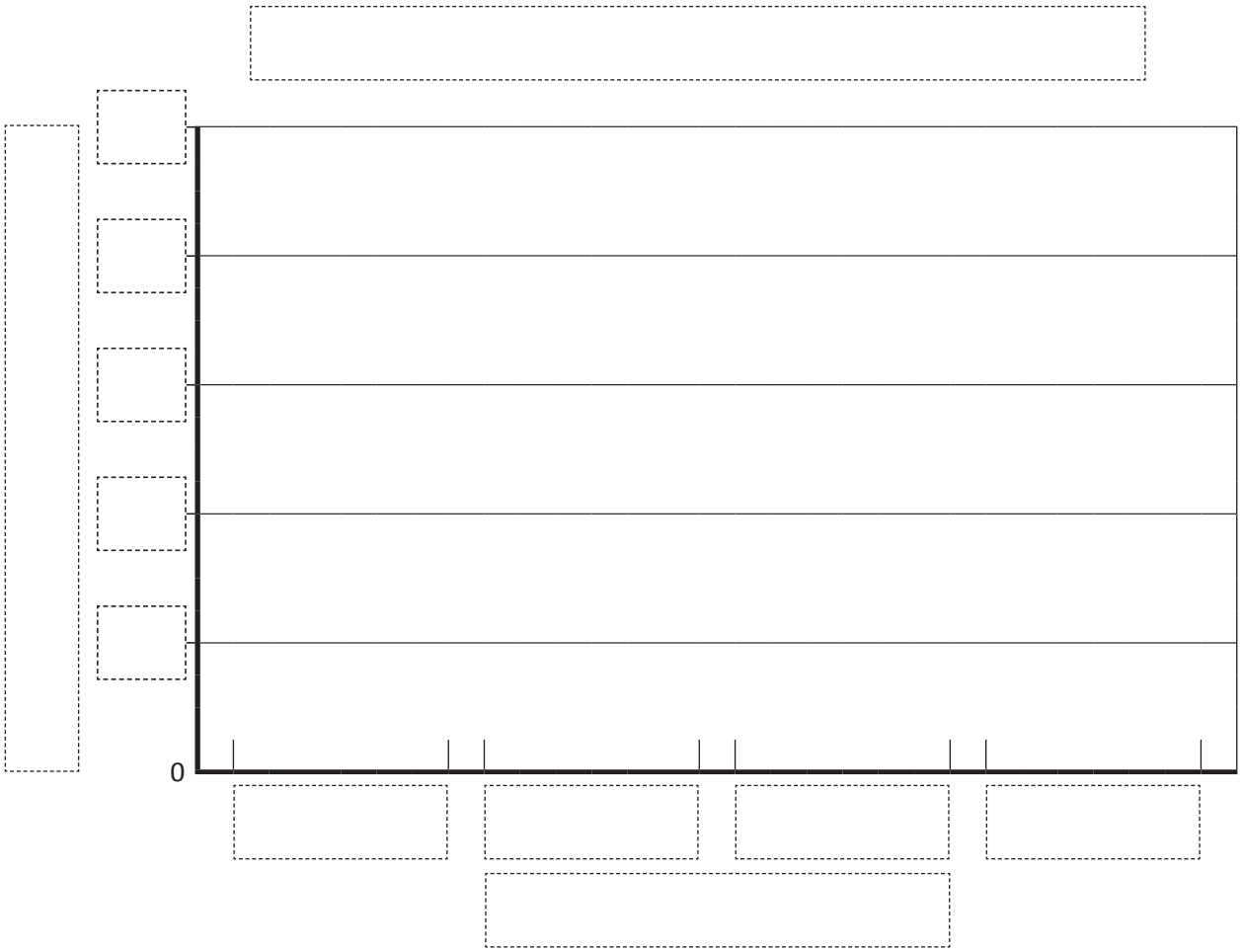
Skills	Not yet	Kind of	Got it
• Interprets the tally method of data collection			
• Displays data as a picture graph labelled correctly using a key			
• Displays data as a column graph labelled correctly using a scale			
• Interprets data from a picture graph using the key			

Bar charts

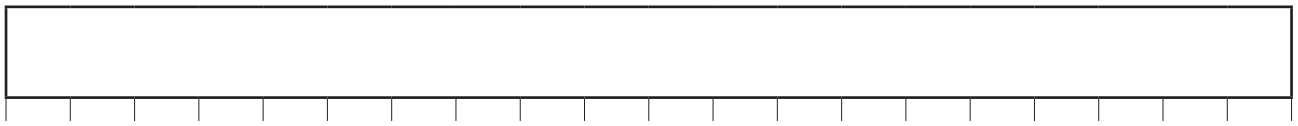
Name _____

1 **Using the information shown in the table, draw a bar chart to show the information about Happy Hour at Jamila's Juice Bar. Don't forget to write the title and to label the axes.**

Juice	Tally
Berry Boost	𝍸 𝍸 𝍸 |
Banana Blast	𝍸 𝍸 ||
Mango Tango	𝍸 |||
Strawberry Surprise	𝍸 𝍸 𝍸 𝍸



2 **Create a divided bar chart that shows the total number of hamburgers sold at Tyler's Takeaway last week. Label it clearly.**

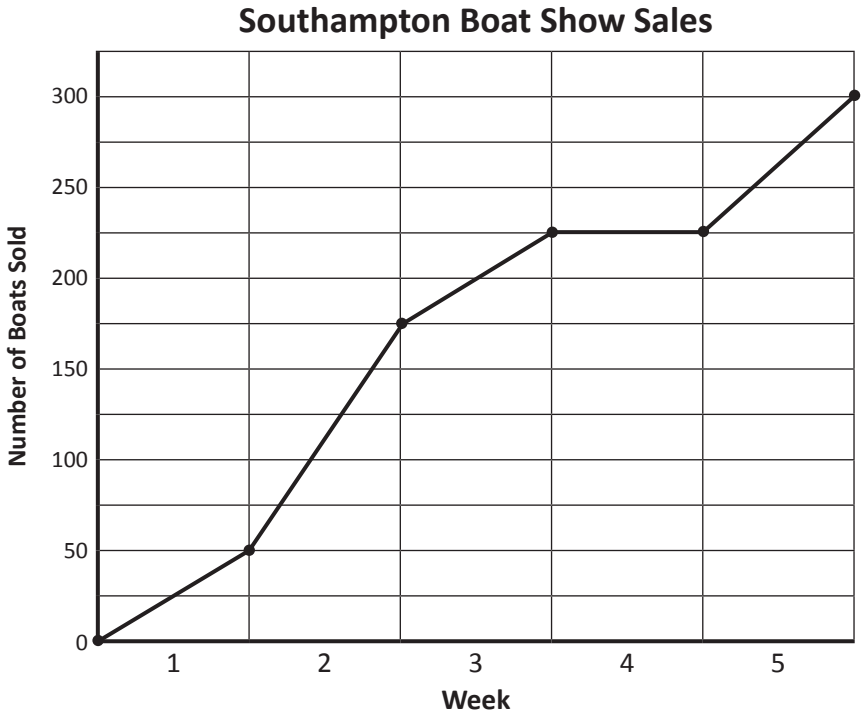


Skills	Not yet	Kind of	Got it
• Interprets the tally method of data collection			
• Displays data as a column graph labelled correctly using a scale			
• Creates a divided bar graph			

Line graphs

Name _____

1 **The line graph below shows the number of boats sold each week at a boat show over 5 weeks.**



a By the end of which week did the Southampton Boat Show sell 300 boats? _____

b How many boats did the Southampton Boat Show sell by the end of Week 4? _____

c Estimate how many boats were sold half way through Week 2? _____

d What was the difference in the amount of boats sold by the end of Week 5 compared to the end of Week 1? _____

e How many boats were sold altogether by the end of Week 3? _____

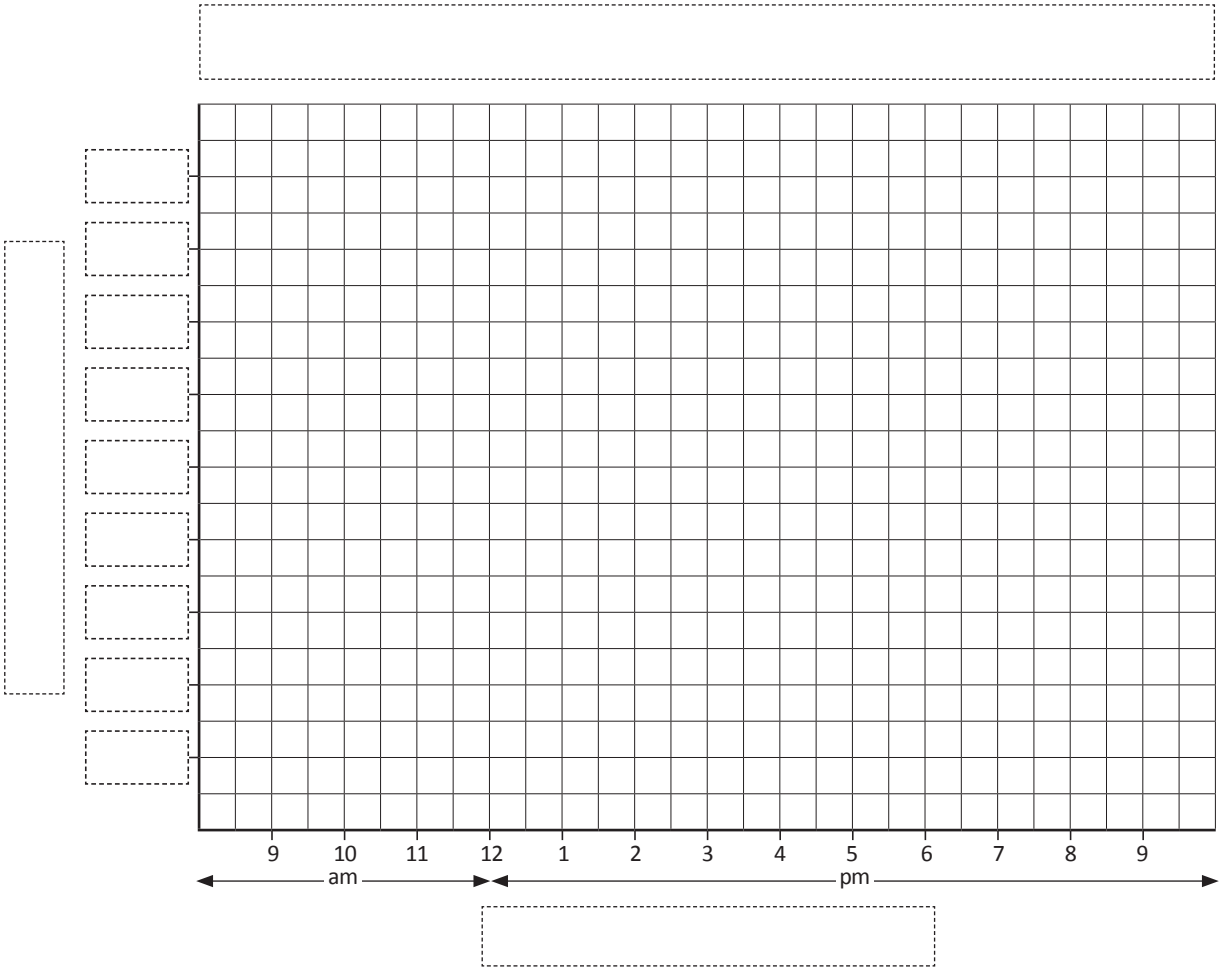
Skills	Not yet	Kind of	Got it
• Reads and interprets information on a line graph			

Line graphs

Name _____

2 **On Thursday, Phoebe recorded the temperature every hour from 9 am to 9 pm.**

Time	9 am	10 am	11 am	12 pm	1 pm	2 pm	3 pm	4 pm	5 pm	6 pm	7 pm	8 pm	9 pm
Temperature	11 °C	13 °C	15 °C	18 °C	18 °C	17 °C	16 °C	16 °C	14 °C	14 °C	11 °C	11 °C	10 °C



a Draw a line graph to show the temperatures recorded.

b Write a title for the line graph.

c Label the vertical axis with an appropriate scale.

d Label both axes.

e Circle the plot that shows the second highest temperature.

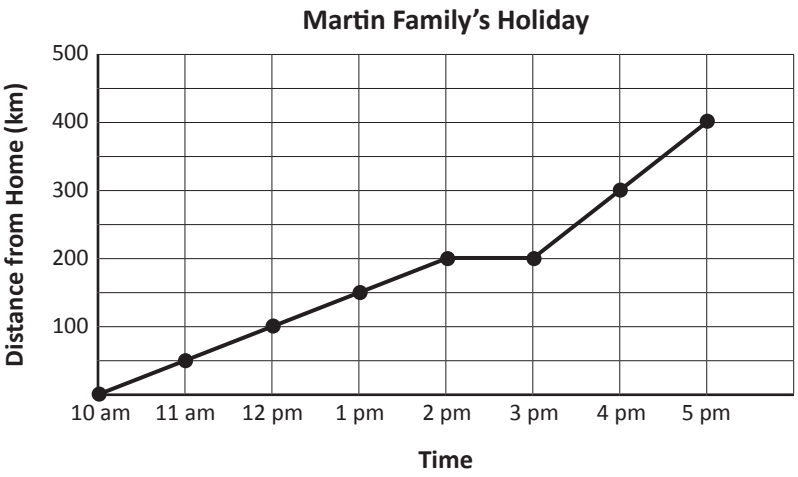
f What might the temperature have been at 4:30 pm? ☐

Skills	Not yet	Kind of	Got it
• Constructs a line graph that shows continuous change			
• Uses an appropriate scale			
• Interprets data based on information shown between plotted points			

Line graphs

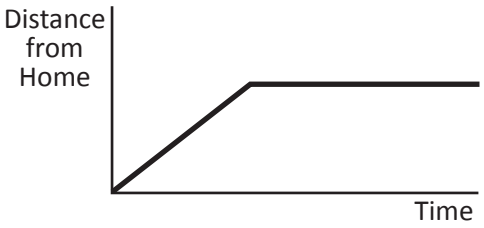
Name _____

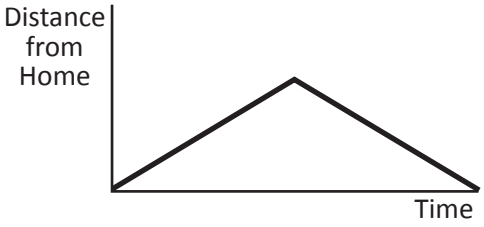
3 **This graph shows information about the Martin family's holiday. They travelled from London to Newcastle to stay with relatives for a few days. Study the graph and decide if the following statements are true or false.**

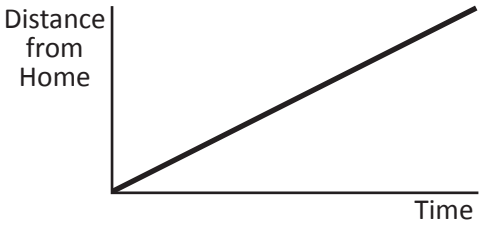


Statement	True/False
a The trip began at 10 am.	
b By 12 pm they had travelled 150 km.	
c The family stopped for a 2 hour break.	
d They completed 200 km by 2 pm.	
e They travelled 100 km an hour for the last 2 hours of their trip.	

4 **Analyse the following travel graphs. Connect each graph to the correct statement with a line.**







Liam and Hassan left home at 9 am and drove all the way to their football match without stopping.

Abdul was on his way to school when he realised he'd forgotten his homework so he had to go home again to get it.

Linh was on her way to the library when she decided to stop for coffee.

Skills	Not yet	Kind of	Got it
• Interprets features of a travel graph			
• Matches a story to a travel graph			

Series F – Statistics – Student Progress Record

Name_____ Class _____ Date _____

What went well: _____

_____

_____

_____

What I need to improve: _____

_____

_____

_____

Series F – Statistics – Student Progress Record

Name_____ Class _____ Date _____

What went well: _____

_____

_____

_____

What I need to improve: _____

_____

_____

_____

ASSESSMENT ANSWERS

Page 3

1a 16; 12; 8; 20

b 56

2

Juice	Sales
Berry Boost	symbol symbol symbol symbol
Banana Blast	symbol symbol symbol
Mango Tango	symbol symbol
Strawberry Surprise	symbol symbol symbol symbol symbol

Key: symbol = 4 juices Symbols will vary.

3a Key:  = 10 hamburgers

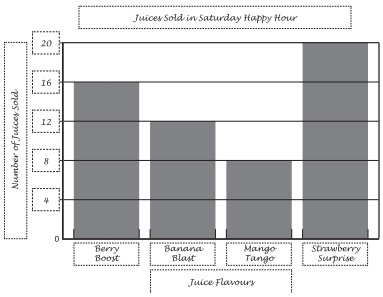
b 40

c 5

d 100

Page 4

1



2

Pages 5–7

1a 5

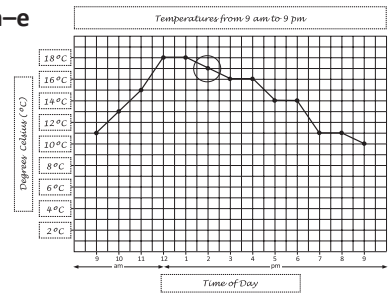
b 225

c 100 to 125

d 250

e 225

2a–e



f 15°C

3a T

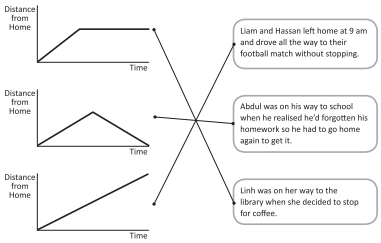
b F

c F

d T

e T

4



Series F – Statistics

Topic	Reference	Strand	Objective
All	4S1	Statistics	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
All	5S1	Statistics	Complete, read and interpret information in tables, including timetables.
Line Graphs	5S2	Statistics	Solve comparison, sum and difference problems using information presented in a line graph.