

CHAPTER 6: INTERPRETING TABLES AND GRAPHS

6A INTERPRETING TABLES

1 The table below indicates bus fares for various distances on Sydney buses.

Ticket	MyBus1 1 - 2 Sections	MyBus2 3 - 5 Sections	MyBus3 6+ Sections
Adult Single	\$2.10	\$3.50	\$4.50
Concession Single	\$1.00	\$1.70	\$2.20
Adult TravelTen	\$16.80	\$28.00	\$36.00
Concession TravelTen	\$8.40	\$14.00	\$18.00

- a How much does it cost for an adult to travel 4 sections?
- b What is the difference in price between an Adult Single MyBus3 ticket and a Concession Single MyBus3 ticket?
- c How much would a concession card holder save by buying a TravelTen ticket instead of 10 Single tickets if they travel:
 - i 2 sections
 - ii 3 sections
 - iii 7 sections?

2 The monthly mean maximum temperature (in °C) for five capital cities for four months in 2011 is given below.

	January	April	July	October
Adelaide	30.6	22.8	15.6	22.1
Brisbane	29.6	26.2	21.5	25.6
Melbourne	26.5	21.2	14.6	20.8
Perth	32.5	27.3	18.3	24.5
Sydney	27.4	22.7	17.4	22.2

- a What was the mean maximum temperature for Adelaide in July?
- b In which month was Sydney's mean maximum temperature 22.2°C?
- c In which city and month was the lowest mean maximum temperature recorded?

- d Which city had the highest mean maximum temperature for:
 - i January
 - ii October?

3 A post office records data about the number of customers and the average amount they spent on various products at different times throughout the day. This information is displayed in the table below.

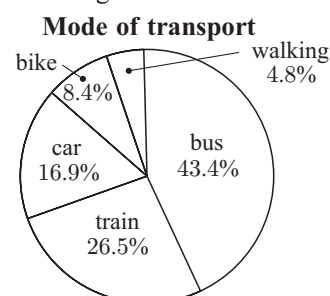
	Postage		Stationery	
	Number of customers	Average spent	Number of customers	Average spent
morning	22	\$2.50	11	\$13.20
midday	15	\$1.70	13	\$5.60
afternoon	35	\$5.30	17	\$9.50

	Gifts	
	Number of customers	Average spent
morning	2	\$21.50
midday	4	\$34.00
afternoon	1	\$27.00

- a How many customers bought stationery in the afternoon?
- b What was the average amount spent on gifts in the middle of the day?
- c How much money was spent on average on postage in the morning?
- d How many customers in total bought stationery?
- e What was the total amount spent on gifts over the whole day?

6B INTERPRETING GRAPHS

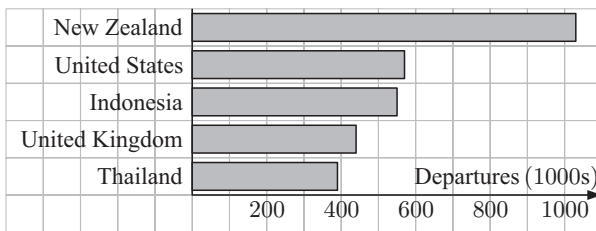
1 A group of 83 Year 9 students was asked how they travel to school each morning.



- a What percentage of students caught the train to school?
- b What was the most common mode of transport?
- c How many students travel by:
 - i car
 - ii bike?

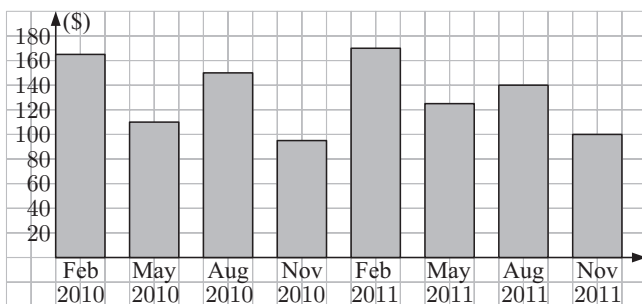
2 The graph shows the number of Australian residents travelling abroad to the top 5 tourist destinations in 2009.

Top 5 Australian outbound tourist destinations



- a Estimate the number of Australian tourists to:
 - i Indonesia
 - ii Thailand.
- b What was the number one tourist destination?
- c How many more people travelled to the United States than to the United Kingdom?

3 The size of Chloe's quarterly electricity bill is displayed in the graph below.



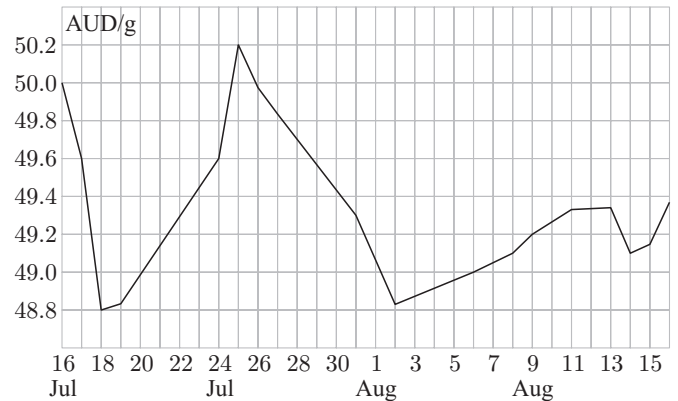
- a How much was Chloe's electricity bill for the quarter ending August 2010?
- b Find the decrease in Chloe's electricity bill from February 2011 to May 2011.
- c Describe the percentage change in the electricity bill from:
 - i May 2011 to August 2011

ii February 2010 to November 2010.

6C

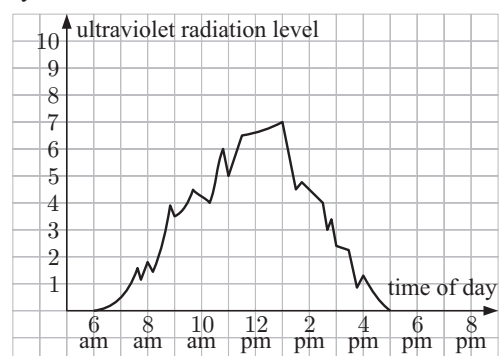
LINE GRAPHS

1 The line graph shows the variation in the price of gold over a 30 day period.



- a Find the gold price on July 31st.
- b
 - i What was the minimum gold price over the 30 days?
 - ii On which day did this minimum price occur?
- c When did the gold price increase the most?
- d Describe the percentage change in the price of gold from:
 - i 6 August to 14 August
 - ii 17 July to 20 July.

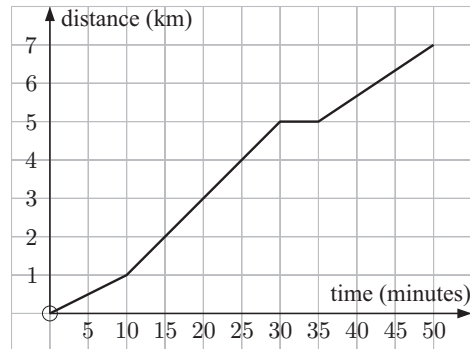
2 The graph below shows the UV levels for one Spring day in Brisbane.



- a Find the UV level at 11 am.
- b
 - i What was the maximum UV level during the day?
 - ii At what time did this maximum UV level occur?
- c Was the UV level increasing or decreasing at 10 am?
- d Find the percentage increase in UV level from 9 am to 12 pm.

- b For which part of the journey was Clara's speed the fastest?
- c If Clara left home at 6:30 pm, what time did she leave Bianca's house?

- 3 The graph below shows Heath's journey running from home to a nearby park.



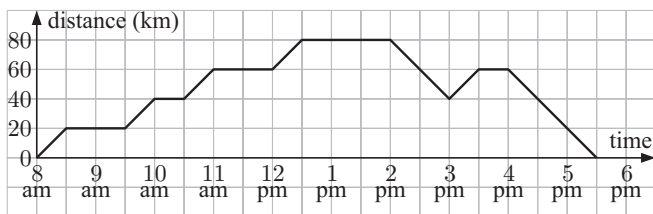
Use the graph to determine:

- a the total length of the journey
- b the time taken to reach the park
- c the time taken to travel the first 2 km
- d the distance travelled after 25 minutes
- e the average speed for the whole journey in km/h
- f the average speed, in km/h:
 - i from the 0 km mark to the 1 km mark
 - ii for the fastest part of the journey
 - iii for the last 20 minutes.

6D

TRAVEL GRAPHS

- 1 The travel graph shows the journey of a plumber travelling to jobs from home. Write a story to describe his journey.



- 2 Clara picks up a couple of friends on her way to a party. She drives for 10 minutes to Adam's house, which is 5 km away. They leave immediately and drive for 20 minutes to Bianca's house, which is 15 km away. Bianca is still getting ready, so Clara and Adam must wait 15 minutes before continuing. They complete the final 10 km of the trip to the party in 10 minutes.

- a Draw a travel graph to illustrate the journey.



REVIEW OF CHAPTER 6

1 The table below displays characteristics of a number of types of fruit.

	<i>Flesh colour</i>	<i>Edible skin</i>	<i>Edible seeds</i>
banana	yellow	x	✓
watermelon	pink	x	✓
orange	orange	x	x
grape	green	✓	✓
strawberry	pink	✓	✓
apple	white	✓	x

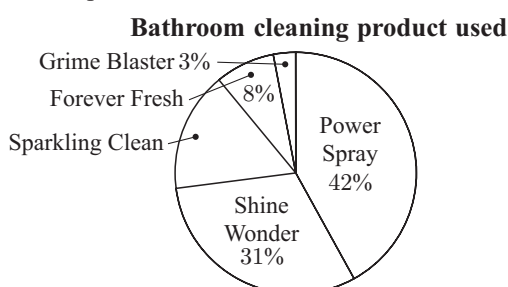
- a Which fruits have white coloured flesh?
- b How many types of fruit listed have edible seeds?
- c Which fruit has pink flesh and edible seeds, but not edible skin?

2 The table below shows the price list for a hand car washing service.

	<i>Standard Wash</i>	<i>Gold Wash</i>	<i>Polish</i>
sedan	\$35	\$55	\$35
station wagon	\$40	\$60	\$35
4WD/van	\$45	\$65	\$35

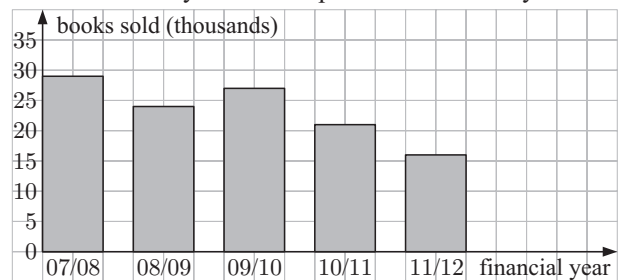
- a How much does it cost to have:
 - i a Standard Wash for a station wagon
 - ii a Gold Wash and Polish for a sedan?
- b Which service costs \$45?
- c How much more is a Gold Wash than a Standard Wash?
- d Find the percentage increase in cost from a Standard Wash to a Gold Wash with Polish for a 4WD/van.

3 A survey of 275 households asked which bathroom cleaning product they used. The results are displayed in the pie chart.



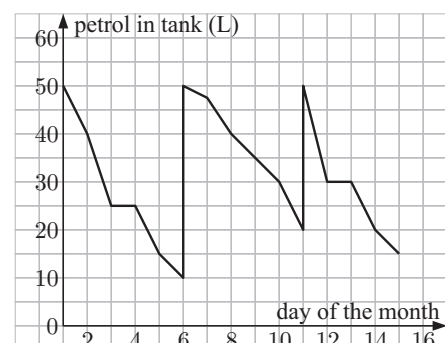
- a What percentage of households use Shine Wonder?
- b Which brand is the most popular?
- c What percentage of households use Sparkling Clean?
- d How many of the surveyed households use Forever Fresh?

4 The graph shows the number of books sold by a bookstore each year for the past five financial years.



- a How many books were sold in the financial year 2010/2011?
- b In which financial year were 24 000 books sold?
- c Which financial year had the most sales?
- d In which year did the greatest drop in sales occur?
- e How many more books were sold in 2007/2008 than in 2010/2011?
- f Find the percentage change in sales from:
 - i 2008/2009 to 2009/2010
 - ii 2009/2010 to 2011/2012.

5 The amount of petrol in Steve's car fuel tank over a two week period is displayed on the line graph.



- a How much petrol can Steve's fuel tank hold?
- b How much petrol was in the tank on the morning of the 8th day?
- c On which mornings did Steve fill up his car? Explain your answer.
- d On which day did Steve use the most petrol?
- e On which days did he not drive at all?
- f How much petrol did he use on the 4th day?

- 7 The travel graph in 6 c displays the Williams family trip. If they left home at 10 am, determine:
 - a the distance travelled in the first hour
 - b the time they stopped for lunch
 - c the time taken to travel the first 90 km
 - d the average speed from:
 - i 10 am to 11 am
 - ii 12 pm to 1 pm
 - iii 1 pm to 3 pm.

- 6 For each of the following travel graphs, find:
 - i the total distance travelled
 - ii the average speed for the whole trip.

