MATHS PLUS 3

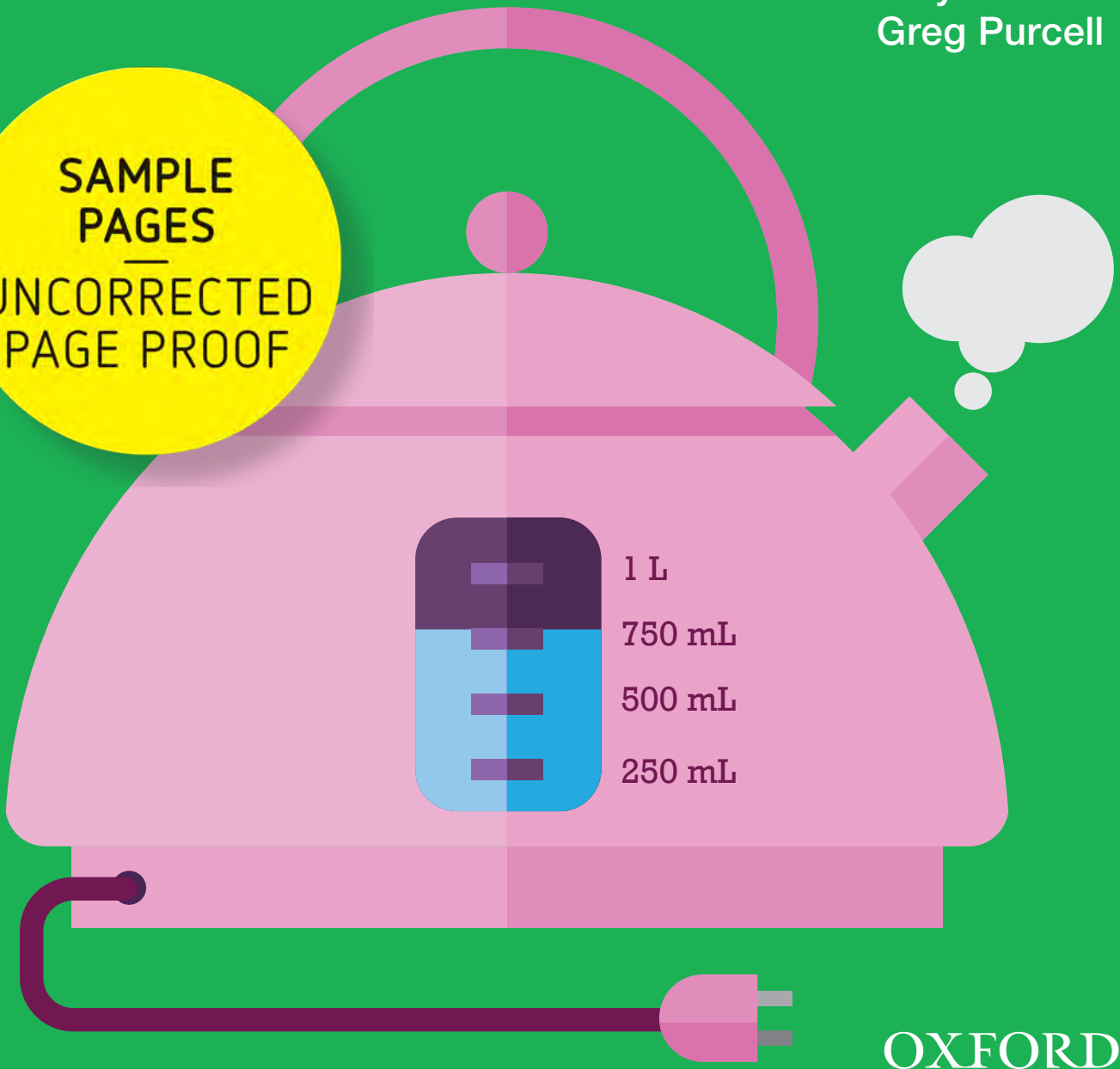
STAGE 2

STUDENT BOOK

NEW SOUTH WALES SYLLABUS

Harry O'Brien
Greg Purcell

SAMPLE PAGES
—
UNCORRECTED PAGE PROOF



OXFORD

Contents

TERM 1

TERM 2

TERM 3

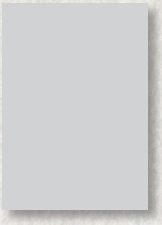
TERM 4

To the teacher

The *Maths Plus* NSW Syllabus/Australian Curriculum series, Kinder to Year 6, is based on the **NSW Mathematics Syllabus for the Australian Curriculum Mathematics** (ACARA). Each book after Kinder level builds upon prior knowledge and works towards an understanding of the achievement standards for the relevant year level and beyond. *Maths Plus* provides students with opportunities to sequentially develop their skills and knowledge in the three strands of the **Australian Curriculum Mathematics**: Number and Algebra, Measurement and Geometry, Statistics and Probability.

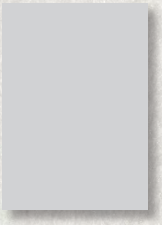
Series components

Student Books



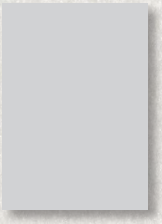
Work towards achieving the relevant outcomes by developing skills and competency in **understanding**, **fluency**, **reasoning** and **problem solving.**

Mentals and Homework Books



Provide concise and essential revision and consolidation activities that correspond with the concepts and units of work presented in the Student Books.

Assessment Books

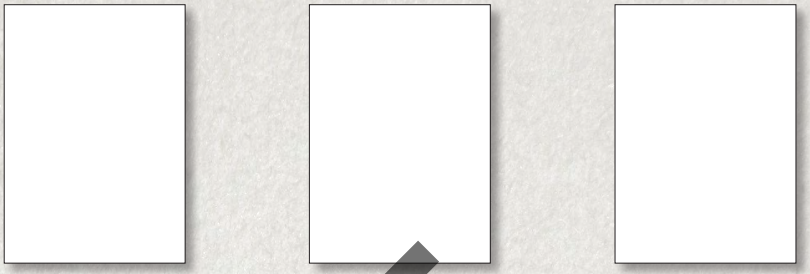


Include short post-tests with a simple marking system to assess students' skills and understanding of the concepts in the Student Books.

Student Book features

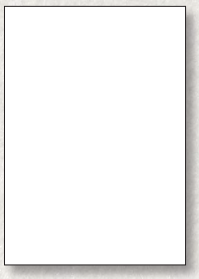
- All pages are colour coded to match the three **Australian Curriculum Mathematics** strands.

Number and Algebra | Measurement and Geometry | Statistics and Probability



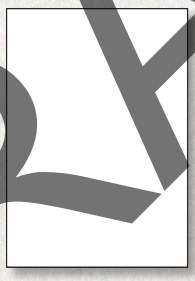
- **Australian Curriculum Mathematics** content descriptions, proficiency strand references and general capabilities appear on each page.

Dictionary



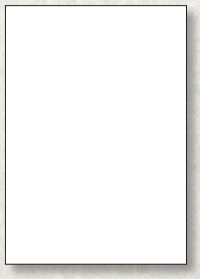
- The **Dictionary** (Years 2 to 6) features clear and simple explanations of mathematical terms and language.

Diagnostic term reviews



- **Diagnostic term reviews** (Years 1 to 6) assist in pinpointing students' strengths and weaknesses, allowing intervention and re-teaching opportunities where required.

Find a topic

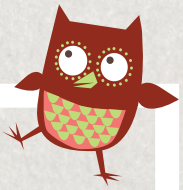


- The **Find a topic** page allows teachers the freedom to address particular topics and student needs as appropriate, providing essential revision and consolidation opportunities.

Teacher Book and Teacher Dashboard

Provide access to a wealth of resources and support material:

- curricula and planning documents
- interactive concept introductions
- potential difficulties videos
- learning activities
- support and extension activities
- reflection
- blackline masters and investigation pages
- links to *Advanced Primary Maths* (Years 3 to 6)
- assessment tests
- answers for student resources



www.oxfordowl.com.au

Oxford Owl — the online destination for your *Maths Plus* Teacher Dashboard.

Oxford OWL

Find a topic

NUMBER AND ALGEBRA

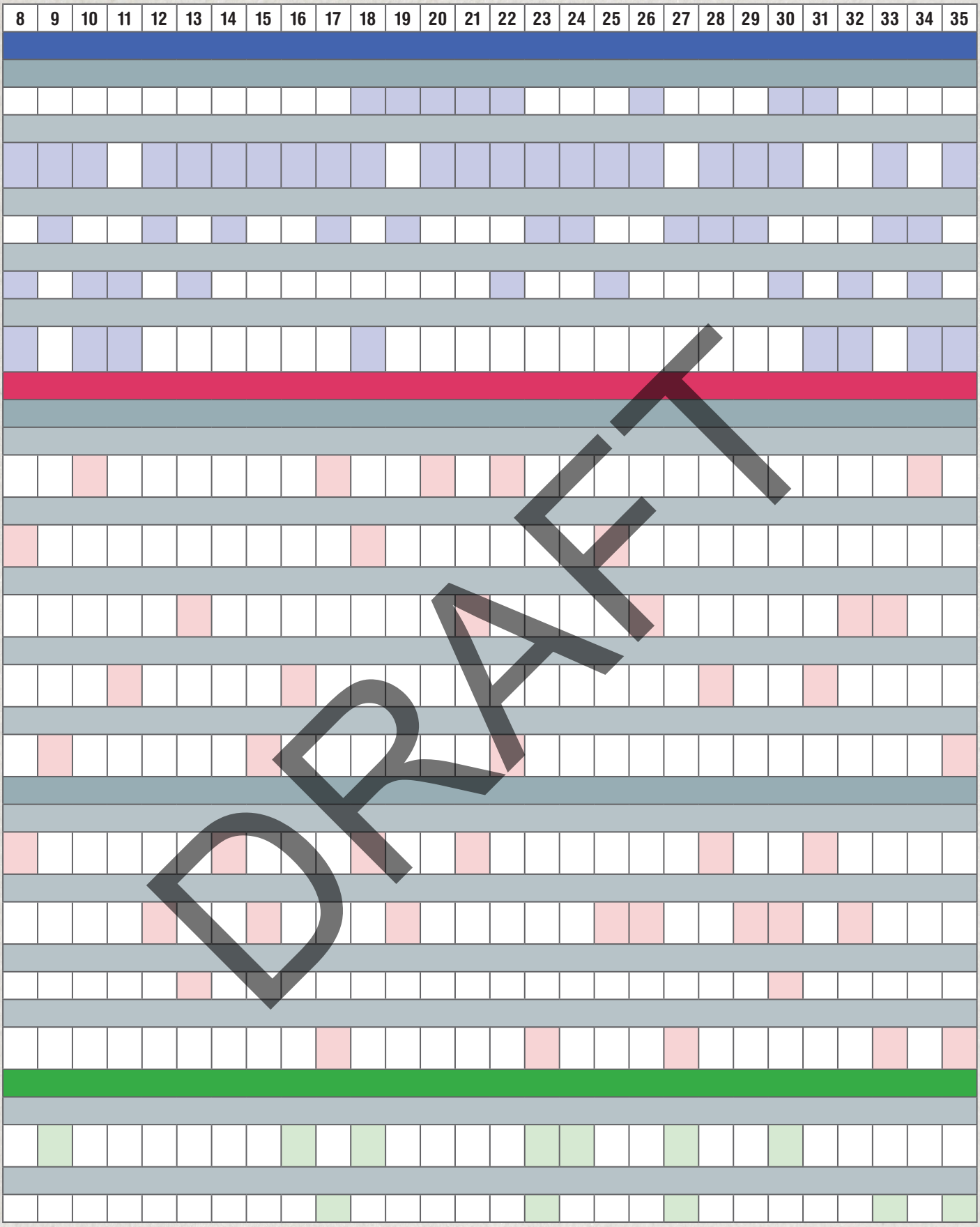
MEASUREMENT AND GEOMETRY

STATISTICS AND PROBABILITY

Units	1	2	3	4	5	6	7
NUMBER AND ALGEBRA							
Whole Numbers Working Mathematically MA2-1WM MA2-2WM MA2-3WM							
MA2-4NA applies place value to order, read and represent numbers of up to five digits							
Addition and Subtraction Working Mathematically MA2-1WM MA2-2WM MA2-3WM							
MA2-5NA uses mental and written strategies for addition and subtraction involving two-,three-, four- and five-digit numbers							
Multiplication and Division Working Mathematically MA2-1WM MA2-2WM MA2-3WM							
MA2-6NA uses mental and informal written strategies for multiplication and division							
Fractions and Decimals Working Mathematically MA2-1WM MA2-3WM							
MA2-7NA represents, models and compares commonly used fractions and decimals							
Patterns and Algebra Working Mathematically MA2-1WM MA2-2WM MA2-3WM							
MA2-8NA generalises properties of odd and even numbers, generates number patterns, and completes simple number sentences by calculating missing values							
MEASUREMENT AND GEOMETRY							
Measurement Working Mathematically MA2-1WM MA2-2WM MA2-3WM							
Length Working Mathematically MA2-1WM MA2-3WM							
MA2-9MG measures, records, compares and estimates lengths, distances and perimeters in metres, centimetres and millimetres, and measures, compares and records temperatures							
Area Working Mathematically MA2-1WM MA2-2WM							
MA2-10MG measures, records, compares and estimates areas using square centimetres and square metres							
Volume and Capacity Working Mathematically MA2-1WM MA2-3WM							
MA2-11MG measures, records, compares and estimates volumes and capacities using litres, millilitres and cubic centimetres							
Mass Working Mathematically MA2-1WM MA2-2WM MA2-3WM							
MA2-12MG measures, records, compares and estimates the masses of objects using kilograms and grams							
Time Working Mathematically MA2-1WM							
MA2-13MG reads and records time in one-minute intervals and converts between hours, minutes and seconds							
Geometry							
Three-Dimensional Space Working Mathematically MA2-1WM MA2-3WM							
MA2-14MG makes, compares, sketches and names three-dimensional objects, including prisms, pyramids, cylinders, cones and spheres, and describes their features							
Two-Dimensional Space Working Mathematically MA2-1WM MA2-3WM							
MA2-15MG manipulates, identifies and sketches two-dimensional shapes, including special quadrilaterals, and describes their features							
Angles Working Mathematically MA2-1WM							
MA2-16MG identifies, describes, compares and classifies angles							
Position Working Mathematically MA2-1WM MA2-3WM							
MA2-17MG uses simple maps and grids to represent position and follow routes, including using compass directions							
STATISTICS AND PROBABILITY							
Data Working Mathematically MA2-1WM MA2-2WM MA2-3WM							
MA2-18SP selects appropriate methods to collect data, and constructs, compares, interprets and evaluates data displays, including tables, picture graphs and column graphs							
Chance Working Mathematically MA2-1WM MA2-2WM MA2-3WM							
MA2-19SP describes and compares chance events in social and experimental contexts							

Working Mathematically Outcomes

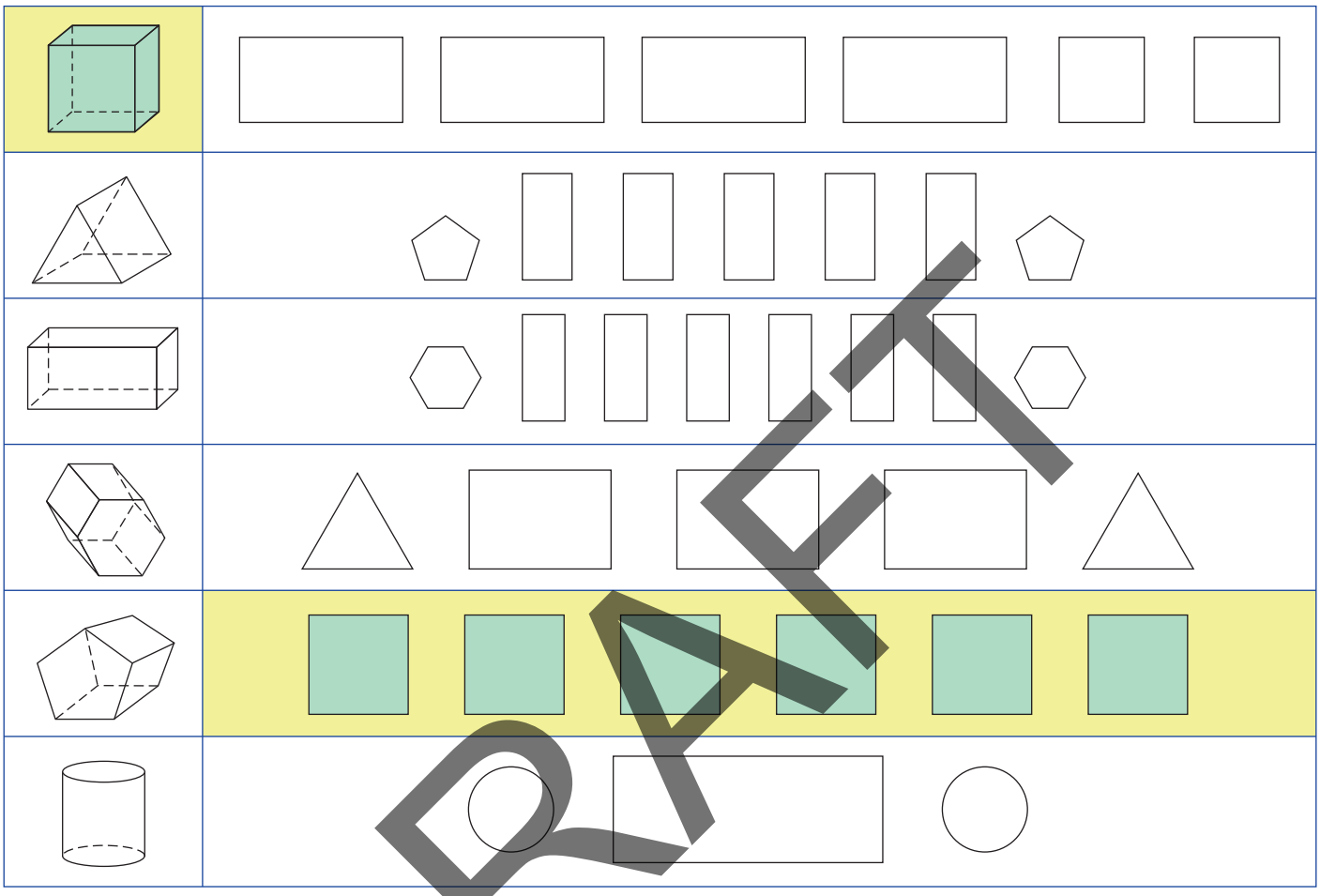
MA2-1WM uses appropriate terminology to describe, and symbols to represent, mathematical ideas
MA2-2WM selects and uses appropriate mental or written strategies, or technology, to solve problems
MA2-3WM checks the accuracy of a statement and explains the reasoning used


8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35
DRAFT

unit 4

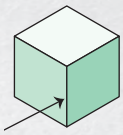
Prisms and cylinders

9 Study each set of faces and surfaces. Match each object to its set of faces or surfaces. Then, colour each 3D object and its set of matching faces or surfaces the same colour. The first one is done for you.



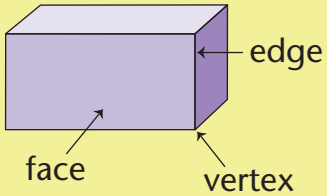
A vertex is where two or more lines meet to form an angle.

An edge is where two surfaces meet or intersect. Edges can be straight or curved.

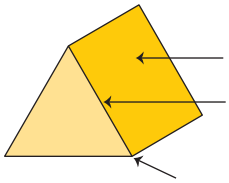


10 Use the words face, vertex or edge to correctly label each set of arrows. The first one has been done for you.

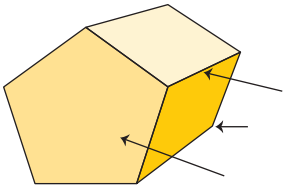
a



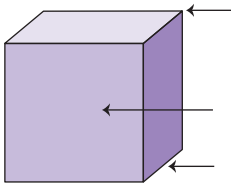
c



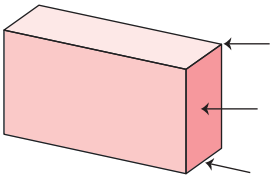
e



b



d

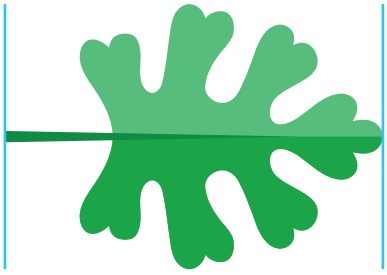


Measuring in centimetres

11 Estimate and then measure the length of these leaves in centimetres.

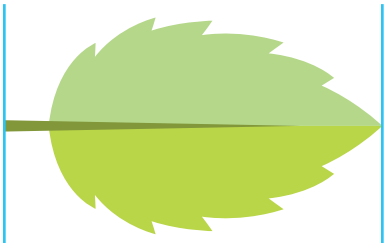
a

b

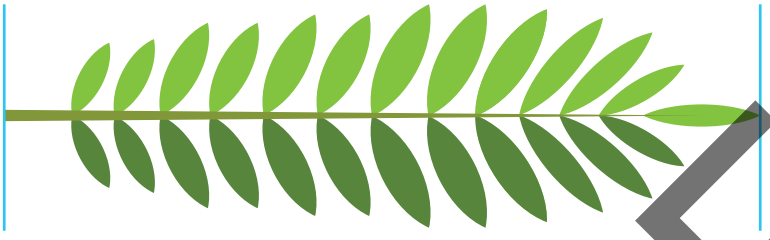


c

d



e



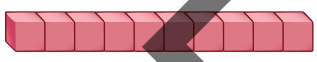
f

	a	b	c	d	e	f
Estimate						
Actual						

12 What is the difference in length between the longest and the shortest leaf? _____ cm

13 Find these objects and measure the length of each in centimetres.

a

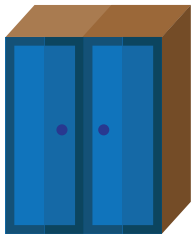


b

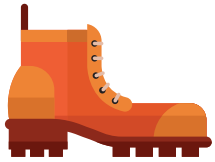
c

d

e



f



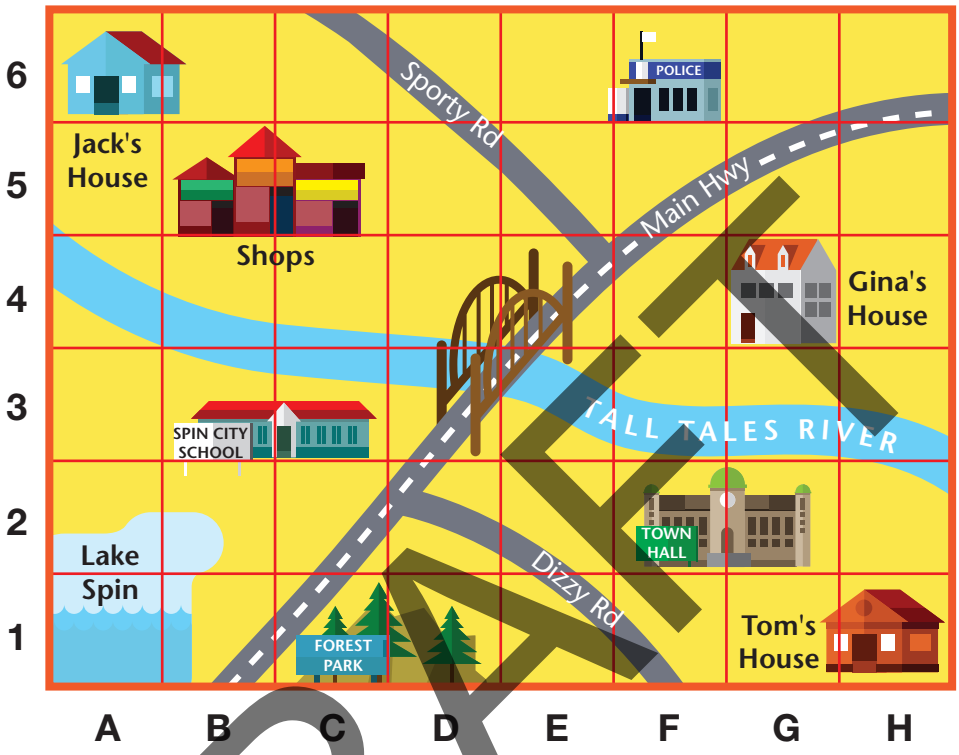
14 Use the letters a, b, c, d, e, f to place the objects above in order of length from shortest to longest.

_____

unit 6

Grid maps

Grids help you locate places on maps. A grid uses lines to make rows and columns on a map. The rows go from side to side. The columns go from top to bottom. Letters are used to label the columns and numbers label the rows.



9 What can be found in these grid references?

a A1 _____

b F6 _____

c H1 _____

d F2 _____

e D1 _____

f B5 _____

g G4 _____

10 Give all the grid references for the school. _____

11 Give all the grid references for Lake Spin. _____

12 Give all the grid references for the shops. _____

13 Give all the grid references for Forest Park. _____

14 Tall Tales River passes through the following grid references. Answer true or false.

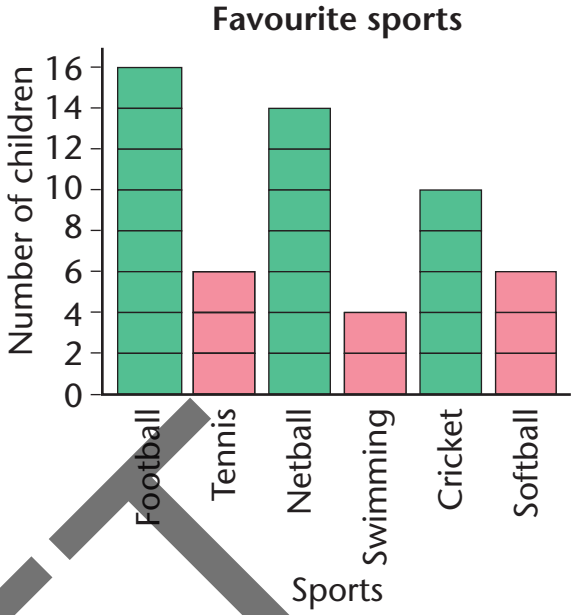
a A4 _____ **b** C6 _____ **c** F3 _____ **d** B4 _____

15 Draw your house in E6.

Column graphs

unit 6

16 Interpret the column graph.



a What sports have the same popularity? _____

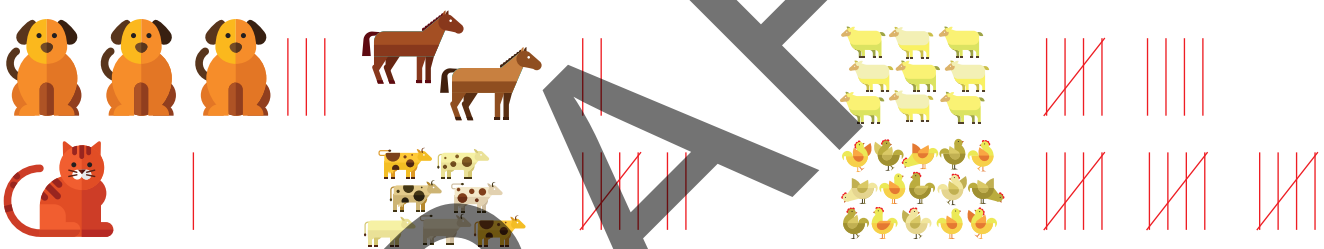
b How many more children play netball than cricket? _____

c How many more children play football than tennis? _____

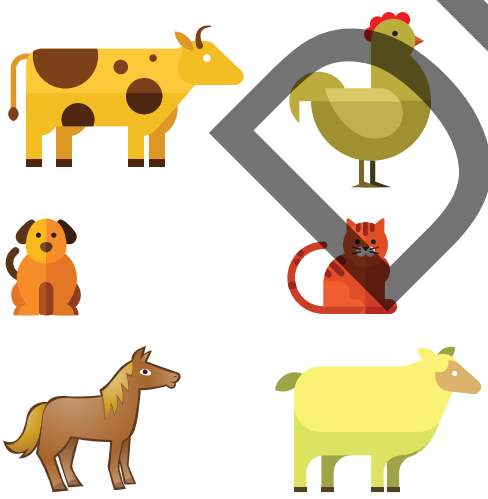
d How many children play the two most popular sports? _____

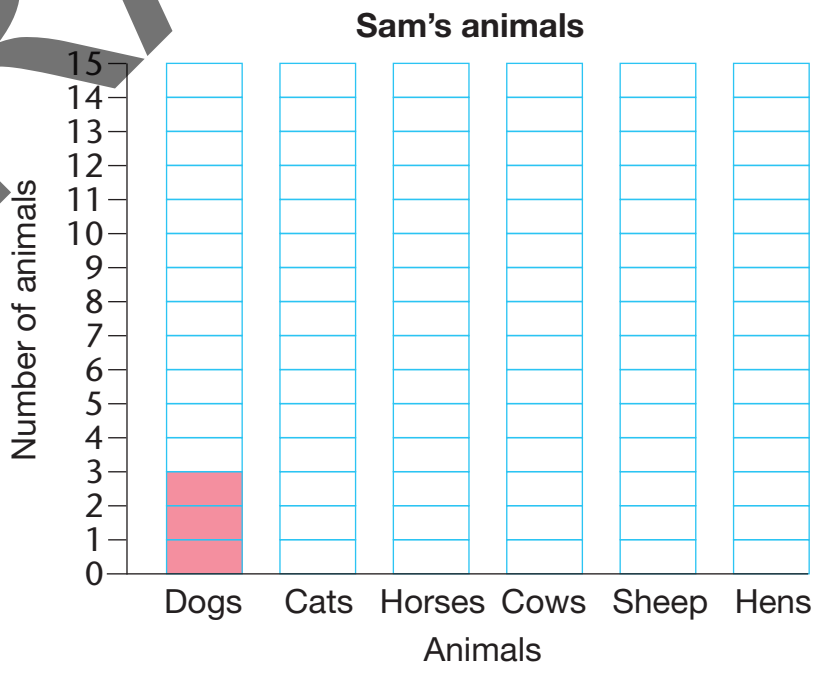
e Do as many children play netball as children who swim and play cricket combined? _____

17 Sam, the hobby farmer, surveyed his animals to see if any were missing.



Construct a column graph to represent the farm animals.





18 **Categories**

a Which animals do you think are Sam's pets?

_____

b Which animals do you think are being bred to sell?

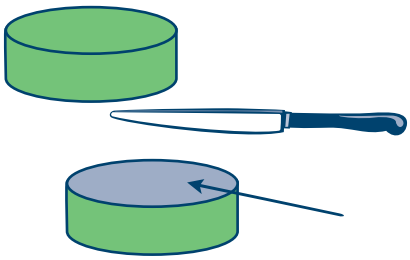
_____

unit 21

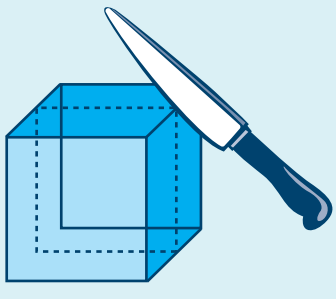
Cross-sections

7 Colour the shape that represents the cross-section of each solid.

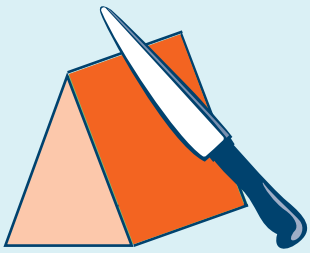
All solids are cut parallel to their bases. You may need to model some of these from a soft substance to discover the shape of the cross-section.



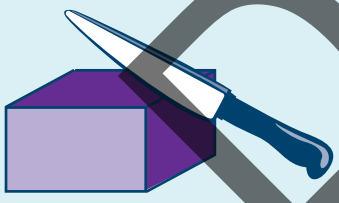
a



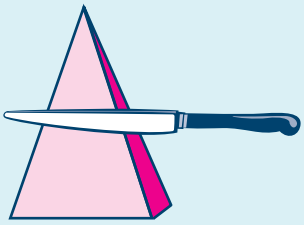
b



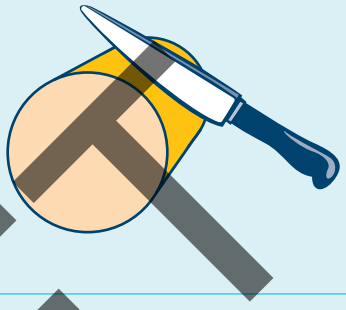
c



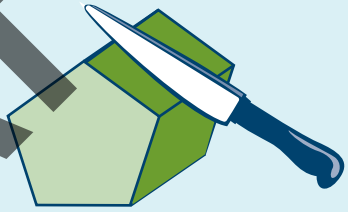
d



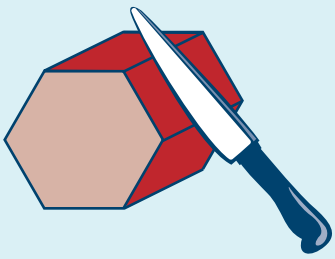
e



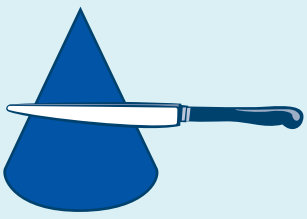
f



g



h



8 When prisms are cut parallel to their bases, the cross-section is the same size as the base. Is this true for pyramids and cones? _____

Litres

unit 21

9 Compare each container to a 1 L measuring jug to estimate its capacity.

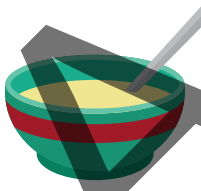
	Container	Less than 1 L	About 1 L	More than 1 L
a	A margarine container			
b	A jug			
c	A small juice			
d	A saucepan			
e	A milk carton			
f	A tin of paint			
g	A coffee mug			

10 Use a 1 L measuring jug or 1 L milk carton to measure the capacity of these items.

a A kettle

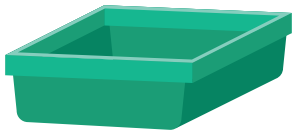
☐ litres

b A large bowl



☐ litres

c A tote tray



☐ litres

11 Solve the problems.

a Dad put 45 L of petrol in his car and 38 L of petrol in Mum's car. How many litres was that in total?

_____

b Some campers took an 80 L water container camping. If they drank 62 L, how much water was left?

_____

12 How many of each container could be filled from the 40 L oil drum?

a

☐

b

☐

c

☐

d

☐

unit 25

Addition problems

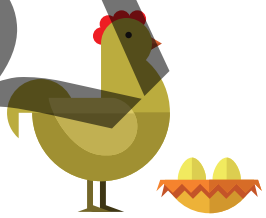
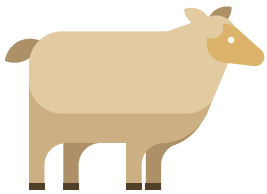
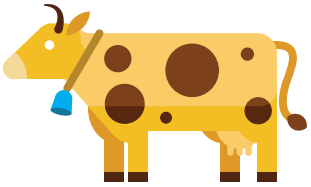
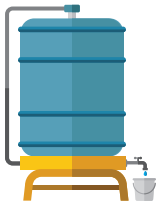
1 Solve the problems.

a Julia travelled from The Ship to Roller Coaster. If she passed through Bumper Cars, how far did she travel?

b Marco travelled from The Ship to Ferris Wheel. If he passed through Gravitron, Carousel and The Tower, how far did he travel?

c Write another problem based on this map.

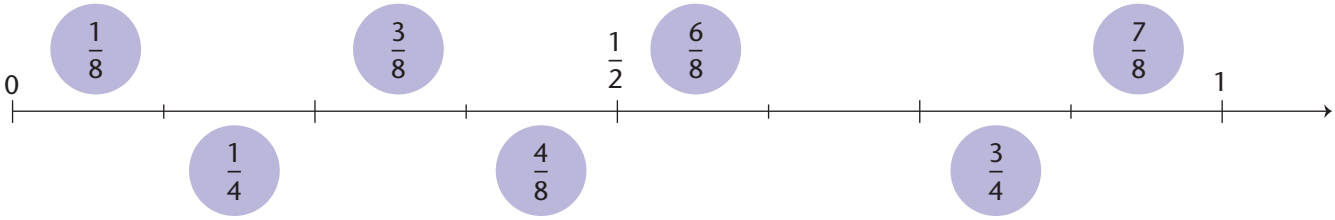
2 Solve the problems.

	Problem		Working out
a	Our hens laid 80 eggs on Saturday and 65 on Sunday. How many eggs did they lay over the weekend?		
b	Farmer Green sheared 43 sheep on Monday, 44 on Tuesday and 42 on Wednesday. How many sheep has he shorn?		
c	If 75 cows were milked this morning and 75 will be milked this afternoon, how many will be milked today?		
d	The water tank has 123 L of water. If a further 47 L of water are added, how much water will there be in the tank?		

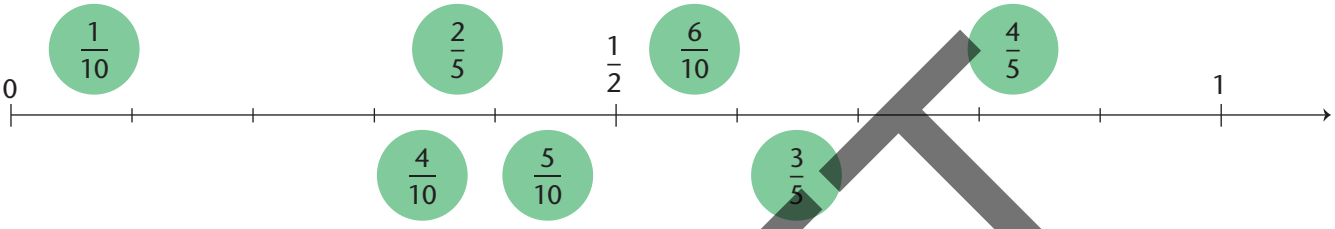
Fractions on a number line

3 Draw lines to place the fractions in the correct positions on the number line.

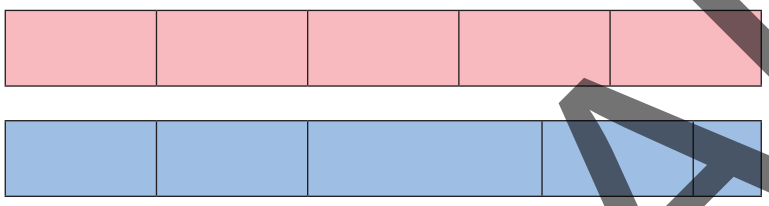
a



b



4 James and Jacinta were told to fold their paper strips into fifths.



a Explain why James has done it incorrectly.

b Jacinta said that $\frac{1}{5}$ is a bigger fraction than $\frac{1}{10}$. Explain why.

5 Shade the fractions of each bar.

a $\frac{3}{4}$ 0 1

b $\frac{3}{8}$ 0 1

c $\frac{1}{3}$ 0 1

d $\frac{7}{10}$ 0 1

e $\frac{1}{5}$ 0 1

Diagnostic review 4

PART 1

Solve the additions and subtractions.

a
$$\begin{array}{r} 345 \\ +\ 214 \\ \hline \\ \hline \end{array}$$

b
$$\begin{array}{r} 357 \\ +\ 628 \\ \hline \\ \hline \end{array}$$

c
$$\begin{array}{r} 6748 \\ +\ 1166 \\ \hline \\ \hline \end{array}$$

d
$$\begin{array}{r} 684 \\ -\ 346 \\ \hline \\ \hline \end{array}$$

e
$$\begin{array}{r} 997 \\ -\ 878 \\ \hline \\ \hline \end{array}$$

f
$$\begin{array}{r} 5376 \\ -\ 2234 \\ \hline \\ \hline \end{array}$$

PART 2

Complete the multiplications.

a 3 books at \$10 each \$ _____

b 6 books at \$5 each \$ _____

c 7 pens at \$4 each \$ _____

d 6 calculators at \$3 each \$ _____

Solve the division facts.

e $15 \div 3 =$ ☐

f $30 \div 5 =$ ☐

g $20 \div 4 =$ ☐

h $32 \div 4 =$ ☐

i $24 \div 4 =$ ☐

j $21 \div 3 =$ ☐

PART 3

Expand the numbers.

a $4235 = 4000 + \square + \square + \square$

b $5362 = \square + \square + \square + \square$

c $6289 = \square + \square + \square + \square$

d $7563 = \square + \square + \square + \square$

e Order the numbers from smallest to largest.

3576	765	5736	36	676

_____

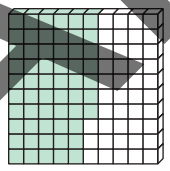
PART 4

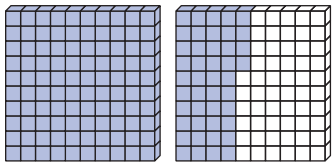
Find the missing numbers.

a	13	+	☐	=	16
b	20	−	☐	=	16
c	☐	+	15	=	35
d	☐	×	6	=	24
e	7	×	☐	=	42
f	30	÷	☐	=	6

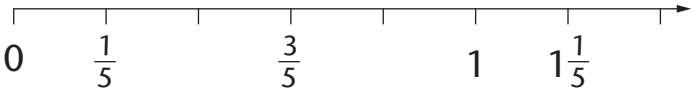
PART 5

Write a decimal to describe each hundredths grid.

a  .

b  .

c Complete the number line.



PART 6

Solve the problems.

a	Mr Bean saved \$136 in May and \$138 in April. What are his savings for the two months?	
b	Juanita had 28 marbles to share among 4 people. How many did each receive?	
c	Aki had a bag of 252 pegs but used 124. How many pegs were left?	

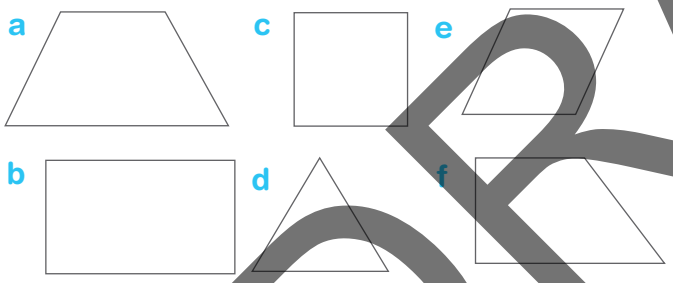
PART 7

Sketch these objects.

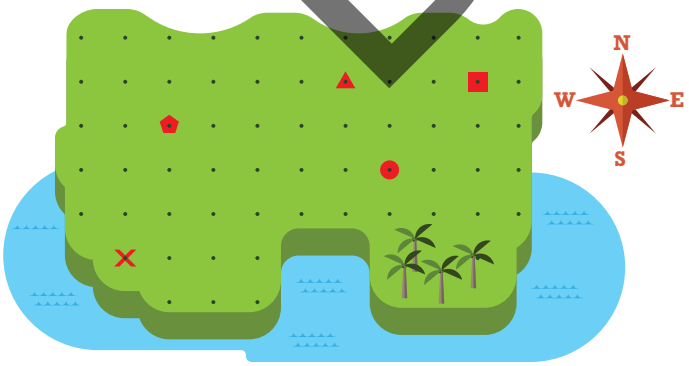
a Any prism	**c** Cylinder
b Cone	**d** Any pyramid

PART 8

Colour the shapes that are parallelograms.



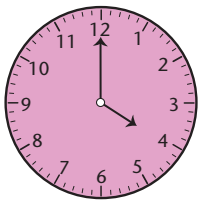
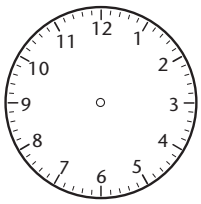
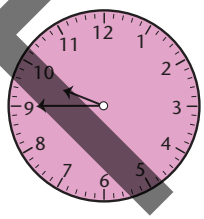
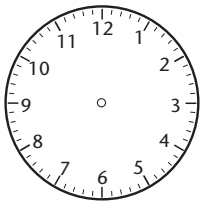
PART 9



a Start at X and travel north 4 spaces.
b Turn east and travel 3 spaces.
c Turn south and travel 3 spaces.
d Head east 4 spaces then north 3 spaces.
e Head west 2 spaces.
f What shape did you find? _____

PART 10

Add or subtract times on the 2nd clock.

a Add 15 min		
b Subtract 10 min		
c Add 20 min	11:23	:

Write these times in digital form.

d	Half past 6	:
e	Quarter past 2	:

PART 11

Record each length measurement as a decimal.

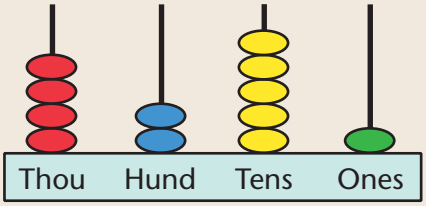
a	1 m 25 cm =	.	m
b	2 m 37 cm =	.	m
c	6 m 49 cm =	.	m

PART 12

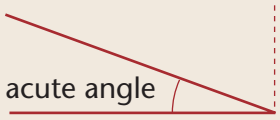
Answer the questions.

a How many millilitres in 1 litre? _____
b How many centimetres in 1 metre? _____
c How many grams in 1 kilogram? _____
d How many minutes in 1 hour? _____
e How many millilitres in $\frac{1}{2}$ litre? _____
f How many centimetres in $\frac{1}{4}$ metre? _____

abacus
An instrument used for calculating.



acute angle
An angle less than 90°.

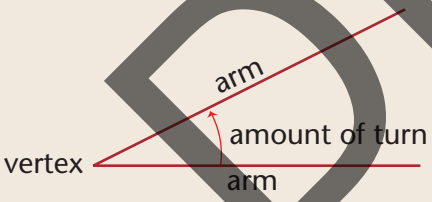


addition (+)
The operation that finds the sum or total.

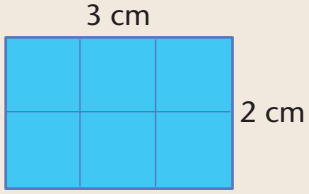
am (*ante meridiem*)
The morning. Any time from midnight to noon, e.g. 7:30 am is 7:30 in the morning.

analog clock
A clock face with numbers 1 to 12, and two hands.

angle
The amount of turn between two arms around a common endpoint (the vertex).



area
The surface covered by any 2D shape. Area can be measured in cm², m², hectares and km².



Area = 6 cm²

array
An arrangement of objects or symbols into rows and columns.

ascending order
An arrangement of numbers from smallest to largest.

256, 291, 307, 452

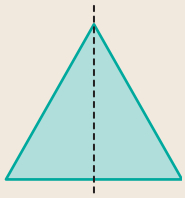
associative property
A series of numbers can be added in any order without changing the result.

$5 + 4 + 6 = 15$
$4 + 6 + 5 = 15$
$6 + 5 + 4 = 15$

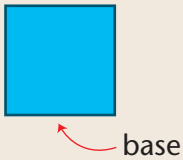
A series of numbers can be multiplied in any order without changing the result.

$5 \times 4 \times 3 = 60$
$4 \times 3 \times 5 = 60$
$3 \times 5 \times 4 = 60$

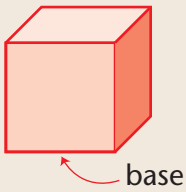
axis of symmetry
An imaginary line that divides a shape exactly in half. If a shape is folded along this line, both sides will match.



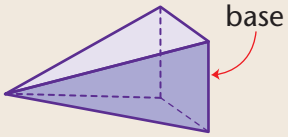
base
The bottom line of a 2D shape.



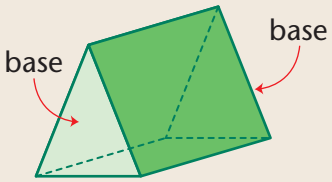
The bottom face of a 3D object.



For example:
- pyramids have one base

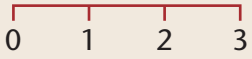


- prisms have two bases.



capacity
The amount a container can hold. Capacity can be measured in millilitres (mL), litres (L) and kilolitres (kL).

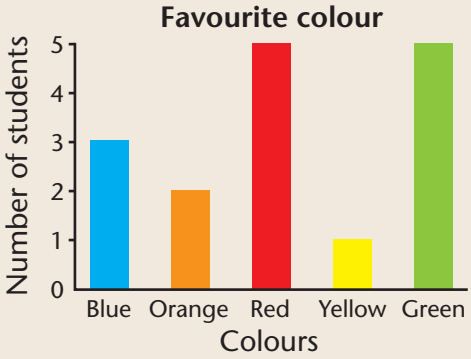
centimetre (cm)
A unit for measuring length.



100 cm = 1 metre

circle
A plane shape bounded by a continual curve that is always the same distance from the centre point.

column graph (bar graph or bar chart)
A column graph generally uses vertical columns to represent data. In a bar graph or bar chart the bars can be either vertical or horizontal.



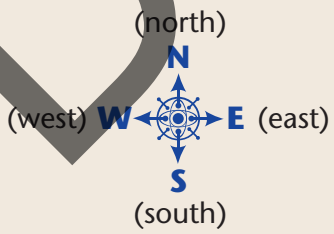
commutative property
Two numbers can be added in any order to give the same total.

$15 + 13 = 28$
$13 + 15 = 28$

Two numbers can be multiplied in any order to give the same product.

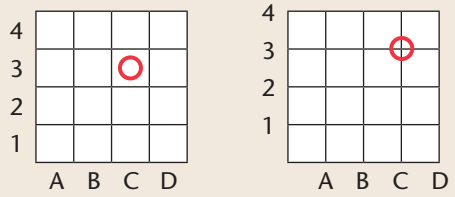
$5 \times 4 = 20$
$4 \times 5 = 20$

compass points
The cardinal compass points are north, south, east and west.

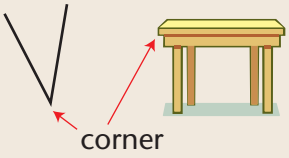


cone
A 3D object with a circular base, tapering to a point (the apex).

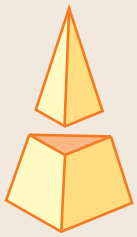
coordinate points
Coordinates locate points on a grid using ordered pairs. The horizontal position is given before the vertical position, e.g. the circle is located at (C,3).



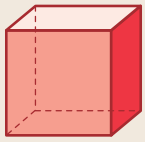
corner (vertex)
The point where two or more lines meet to form an angle.



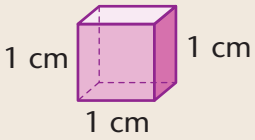
cross-section
The face that is left when a solid (3D) object is cut through, parallel with its base.



cube
A 3D object with six square faces, eight corners and twelve edges.



cubic centimetre
A unit of volume.
A centimetre cube has a volume equal to one cubic centimetre.

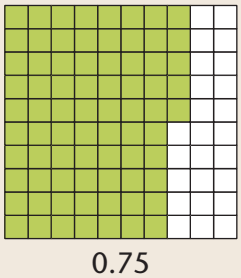


cylinder
An object with two circular faces and one curved surface.

data
Information gathered together, such as a set of numbers or facts.

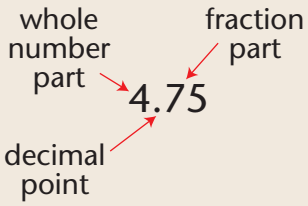
decade
Ten years, e.g. 2010–2020.
Also, a group of tens.

decimal
A fraction can be written as a decimal, e.g. 75 out of 100 can be written as 0.75 in decimal form.



Dictionary

decimal point
A point used to separate the fraction part from the whole number.



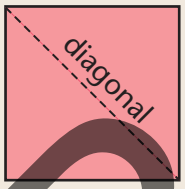
denominator
The bottom number of a fraction that tells how many equal parts there are in the whole.

$\frac{1}{4}$ ← numerator
$\frac{1}{4}$ ← denominator

descending order
An arrangement of numbers from largest to smallest, e.g.

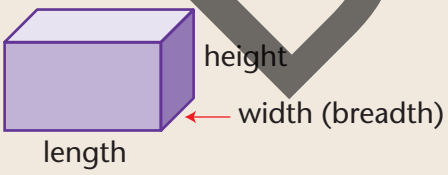
108, 99, 76, 54

diagonal
A straight line which joins two non-adjacent corners of a polygon.



digital clock
A clock which displays only numbers. It has no hands.

dimension
A measurement of length, width (breadth) or height.

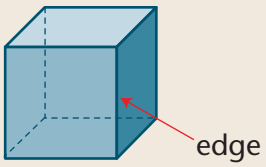


division (÷)
The operation that breaks groups or numbers into equal parts.

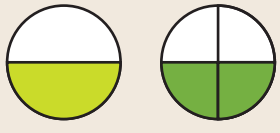
15 ÷ 3 = 5

double
Multiply by two.

edge
The intersection of two faces on a 3D object.



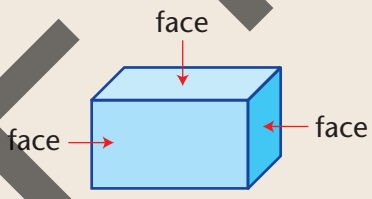
equivalent fractions
Fractions having the same value.



$\frac{1}{2}$ $\frac{2}{4}$

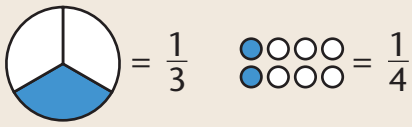
even number
A number that can be divided equally by two, e.g. 2, 4, 6, 8, 10, 12.

faces
The surfaces of a 3D object.



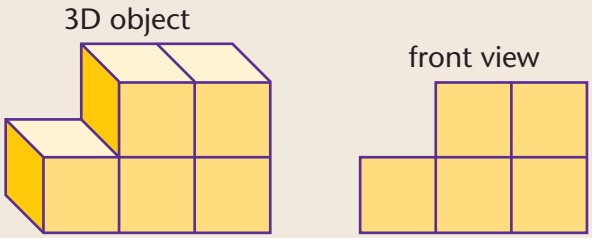
flip (reflect)
To turn a shape over.

fraction
Any part of a whole or group.



$= \frac{1}{3}$ $= \frac{1}{4}$

front view
The view we see when we look at an object from the front.



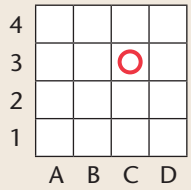
gram
A unit for measuring mass.

1000 grams = 1 kilogram

greater than (>)
The 'greater than' symbol shows the relationship between two unequal numbers, e.g.

$8 > 5$

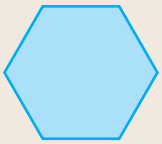
grid references
Grid references locate positions on a map or grid. The horizontal position is given before the vertical position, e.g. the circle is located at C3.



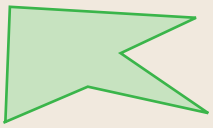
grouping
A way of dividing an amount into equal-sized groups, e.g.

2 groups of 4 in 8

hexagon
A 2D shape with six straight sides.

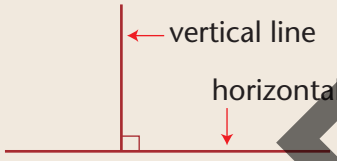


regular hexagon

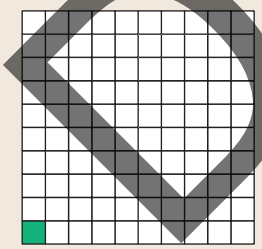


irregular hexagon

horizontal
At right angles to the vertical.



hundredth
One part of a whole that has 100 parts altogether.



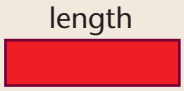
kilogram (kg)
The base unit for measuring mass.

1 kg = 1000 grams

kilometre (km)
A unit of length.

1 km = 1000 metres

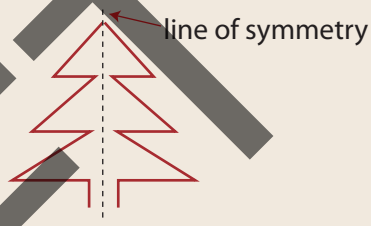
length
The longer of the two dimensions of a shape.



less than (<)
The 'less than' symbol shows the relationship between two unequal numbers.

$5 < 8$

line of symmetry
A line which divides a shape in half exactly. Shapes can have more than one line of symmetry.



litre (L)
A unit of capacity.

1 L = 1000 millilitres

mass
The amount of substance in an object.

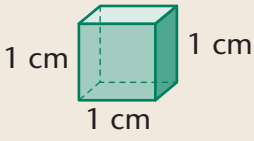
1000 grams = 1 kg
1000 kg = 1 tonne

metre (m)
A unit of length.

1 metre = 100 cm

millilitre (mL)
A unit of capacity.
An object with a volume of 1 cm³ displaces 1 mL of water.

1000 mL = 1 litre



millimetre (mm)
A unit of length.

10 mm = 1 centimetre

multiple
The result of multiplying a given number by any other number is a multiple of that given number.

Multiples of 4 are: 4, 8, 12, 16, 20, etc.

Multiples of 5 are: 5, 10, 15, 20, 25, etc.

Answers

UNIT 1

1

+	2	3	4	5	6	7	8	9	10
a	3	4	5	6	7	8	9	10	11
b	4	5	6	7	8	9	10	11	12
c	5	6	7	8	9	10	11	12	13
d	6	7	8	9	10	11	12	13	14
e	7	8	9	10	11	12	13	14	15
f	8	9	10	11	12	13	14	15	16
g	9	10	11	12	13	14	15	16	17
h	10	11	12	13	14	15	16	17	18

2 Hands on.

3
a 14 + 33 = 47
b 25 + 23 = 48
c 36 + 22 = 58

4 Hands on.

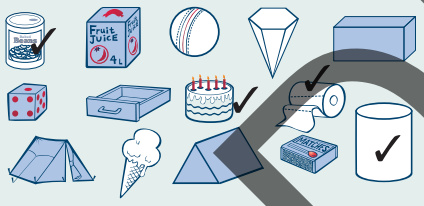
5
a 2, 4, 6, 8
b 3, 6, 9, 12
c 5, 10, 15, 20
d 5, 10, 15, 20, 25, 30
e 2, 4, 6, 8, 10, 12,14
f 3, 6, 9, 12, 15, 18

6
a 2, 4, 6, 8, 10
b 3, 6, 9, 12, 15, 18
c 5, 10, 15, 20, 25

7

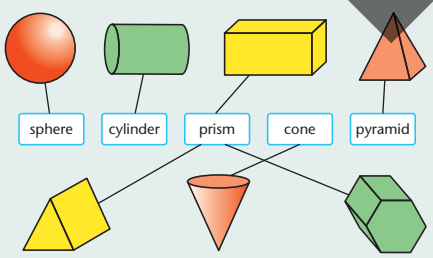
a	3	6	9	12	15	18	21	24	27	30
b	2	4	6	8	10	12	14	16	18	20
c	5	10	15	20	25	30	35	40	45	50
d	4	8	12	16	20	24	28	32	36	40

8



9 Hands on.

10



11 sphere, cone and cylinder

12
a 2 cm
b 5 cm
c 8 cm
d 11 cm
e 14 cm

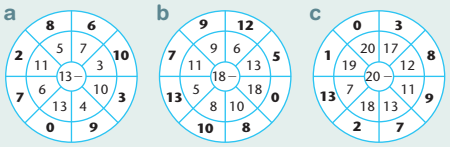
13
a 2 cm
b 8 cm
c 10 cm
d 11 cm
e 9 cm
f 12 cm

14–15 Hands on.

UNIT 2

1
a 3 d 6 g 10 j 10
b 6 e 7 h 7 k 7
c 7 f 9 i 11 l 8

2



3
a 3 c 7 e 7 g 5 i 8
b 9 d 8 f 13 h 6 j 14

4

−	2	3	4	5	6	7	8	9	10

5 a 345 b 194 c 466 d 575

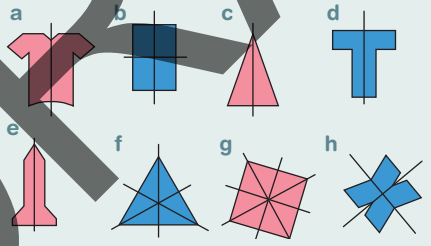
6 Hands on.

7
a Three hundred and twenty-one
b Seven hundred and thirty-seven
c Two hundred and ninety-five
d Five hundred and seventy-four

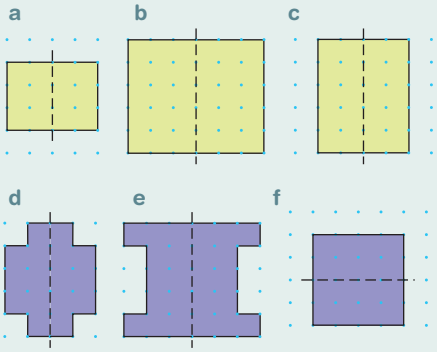
8

a	256	291	307	
b	364	807	999	
c	259	529	952	
d	247	274	427	742
e	507	605	607	705

9



10



11 a E b A c B and D d F

12 Hands on.

13 Hands on.
Circles are poor units for measuring area because they leave gaps.

UNIT 3

1
a 16 e 18 i 17 m 28
b 19 f 16 j 16 n 20
c 18 g 19 k 20 o 20
d 19 h 17 l 29

2 a 16 b $15 c 20 d 29

3 a $20 b $17 c $16 d $26

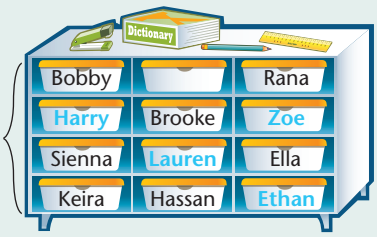
4 Hands on.

5
a 5 + 8 = 13 (also 8 + 5 = 13)
b 9 + 3 = 12 or 3 + 9 = 12
c 9 + 5 = 14 or 5 + 9 = 14
d 14 + 4 = 18 or 4 + 14 = 18
e 11 + 2 = 13 or 2 + 11 = 13
f 12 + 8 = 20 or 8 + 12 = 20

6
a 16 − 7 = 9 or 16 − 9 = 7
b 14 − 3 = 11 or 14 − 11 = 3
c 18 − 6 = 12 or 18 − 12 = 6
d 19 − 5 = 14 or 19 − 14 = 5
e 17 − 14 = 3 or 17 − 3 = 14
f 20 − 11 = 9 or 20 − 9 = 11

7 Hands on.

8
a Rana
b Brooke
c Second row from the bottom and in first row on the left.



d
e
f
g
h Top shelf in the middle.

9

Y	O	U	
	D	I	D
T	H	I	S
V	E	R	Y
W	E	L	L

10 Hands on.

11
a Holden
b Mitsubishi
c Ford
d Toyota
e 2

UNIT 4

1

a	12	−	4	=	8	12	−	8	=	4
b	12	−	7	=	5	12	−	5	=	7
c	15	−	9	=	6	15	−	6	=	9
d	15	−	8	=	7	15	−	7	=	8
e	17	−	9	=	8	17	−	8	=	9
f	20	−	12	=	8	20	−	8	=	12
g	19	−	13	=	6	19	−	6	=	13

2

a	17	−	8	=	9
b	46	−	8	=	$38
c	20	−	14	=	$6
d	24	−	11	=	13

3 Hands on.

4 a 6 b 4 c 8 d 2 e 10 f 12 g 16 h 14 i 20 j 18

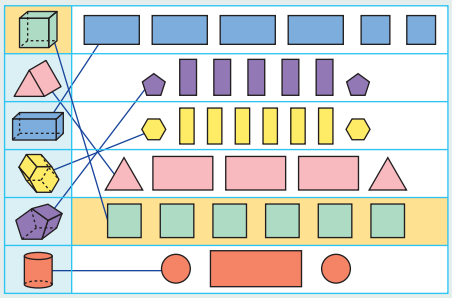
5 2, 8, 20, 18, 10, 14, 12, 16, 6, 4, 0

6 a $14 b 16 c 10 d $8 e 18

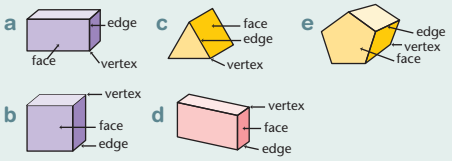
7 44

8 Hands on.

9



10



11 a 2 cm b 5 cm c 3 cm d 5 cm e 10 cm f 7 cm

12 8 cm **13–14** Hands on.

UNIT 5

1 a ●●●●●● even
b ●●●●●●● odd
c ●●●●●●●●● even
d ●●●●●●●●●●●●● odd
e ●●●●●●●●●●●●●● even
f ●●●●●●●●●●●●●●● odd

2

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50

3 even

4 odd

5

a	7	9	11	13	15	17	19
b	16	18	20	22	24	26	28
c	56	58	60	62	64	66	68
d	41	43	45	47	49	51	53
e	98	96	94	92	90	88	86
f	95	93	91	89	87	85	83
g	110	112	114	116	118	120	122
h	115	117	119	121	123	125	127

6 a (6) to 10 b (13) to 10 c (17) to 20 d (24) to 20

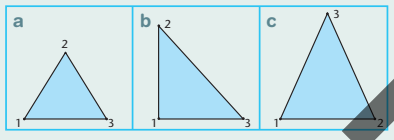
7 a 20 b 20 c 40 d 50 e 30 f 70 g 40 h 40 i 90 j 100

8 a 130 b 130 c 640 d 250 e 220 f 370 g 330 h 550 i 790 j 140

9 a 30 b 40 c 60 d 90 e 70 f 90

10 Hands on.

11



12

	Shape	Sides	Angles
a	Square	4	4
b	Rectangle	4	4

	Shape	Sides	Angles
c	Triangle	3	3
d	Triangle	3	3

13 a Yes b Yes c No

14 a 5 b 10 c 15 d 20 e 30 f 5 g 10 h 15 i 15 j 20

15

a  5 past 12

b  10 past 12

c  20 past 12

d  $\frac{1}{2}$ past 12

e  15 past 12

f  12 o'clock

g  25 past 12

h  22 past 12

16 60

UNIT 6

1

a	285	2	hundreds	8	tens	5	ones
b	743	7	hundreds	4	tens	3	ones
c	854	8	hundreds	5	tens	4	ones
d	999	9	hundreds	9	tens	9	ones
e	870	8	hundreds	7	tens	0	ones
f	809	8	hundreds	0	tens	9	ones

2

a	500	+	20	+	7	g	300	+	40	+	7
b	300	+	60	+	3	h	200	+	90	+	6
c	700	+	20	+	5	i	300	+	90	+	0
d	600	+	90	+	4	j	400	+	70	+	0
e	800	+	50	+	6	k	500	+	0	+	8
f	700	+	90	+	7	l	600	+	0	+	9

3

a	45	<	63	h	153	<	298	o	864	>	67								
b	72	>	51	i	504	>	376	p	67	<	325								
c	86	>	49	j	900	>	899	q	63	>	9								
d	37	<	80	k	401	<	921	r	504	>	405								
e	8	<	81	l	569	>	385	s	327	<	723								
f	21	<	45	m	216	<	621	t	528	>	347								
g	89	>	53	n	308	<	925	u	999	>	100								

4 a $2 \times 5 = 10$ or $5 \times 2 = 10$
b $3 \times 5 = 15$ or $5 \times 3 = 15$
c $5 \times 5 = 25$
d $4 \times 5 = 20$ or $5 \times 4 = 20$

5 a 5, 10, 15, 20, 25, 30, 35, 40, 45, 50
b 15, 25, 35, 30, 40, 10, 5, 0, 50, 20
c 4, 8, 30, 25, 10, 40, 12, 60, 14, 80

6 a $20 b 25 km c $45 d 35

7 a 30 b 25 c 50 d 45 e 60 f 80

8 Hands on.

9 a Lake Spin b Police c Tom's house d Town Hall e Forest Park f Shops g Gina's house

10 B3 and C3

11 A1, A2, B1, B2

12 B5, C5

13 C1, D1

14 a True b False c True d True

15 Hands on. (Children draw a house in E6)

16 a Tennis and Softball b 2 c 5 d 15 e Yes