

Australian



Signpost **MATHS**

Sample pages



Mentals

Introduction

Using the Mentals books

Each unit of the Mentals Book is programmed to review content from the previous two units of the Student Book. For example, Mentals Book Unit 5 can be used to review Student Book Units 3 and 4 while Student Book Unit 5 is being taught. Unit 5 from both books should be completed in the same week.

Presentation

- The content of the strands Number and Algebra, Measurement and Geometry, and Statistics and Probability is covered thoroughly.
- Essential skills are explained.
- Language, graphs, problem solving and tables are given a high profile.
- Mathematics is applied to real-life situations wherever possible.



Mixed-topic Questions

The units present questions in a mixed-topic format.

- This is essential for thorough understanding and continuous review.
- It will allow the teacher to discover weaknesses that could otherwise pass unnoticed.
- The approach reflects real life: similar questions don't often occur together.
- It provides a real test of understanding.

If You Do Not Use a Student Book

These books are invaluable to those who do not use a student book, as they ensure both thorough coverage and constant review of the syllabus content.



ID Cards

- The ID cards on pages 4 and 5 review the terms essential to success in this course.
- These cards can be used over and over.

You can't do the maths if you don't know the language!

Multiple-choice Questions

The multiple-choice questions on page 76 introduce a variety of question types.

Three headers on each double-page spread provide an opportunity for discussion. Suggestions are given on page 3.

- Each unit has one activity at the base of the left-hand page. Tables in addition, subtraction and multiplication (10 and 2 times) are provided.

25:1

1 Double 8 = $\square + \square$
 $2 \times 8 = \square$

2 Answer these sums by bridging to tens.
 $77 + 5 = \square$ $39 + 3 = \square$

3 13 subtract 8.

4 Draw a picture that you have cut into halves. Cut it in half.

5 Colour $\frac{1}{2}$ of these insects.

6 This is a tally. What number does it represent? ||||

7 Complete each table. Each stroke stands for one. A gate stands for five.

Object	Tally	Number
pens		4
pots		
cups		

Object	Tally	Number
flats		
dogs		
hens		

25:2

1 Circle the coins that will add to give the value of the first coin.

2 Bikes Sold

Year	Red	Blue	Pink
2010			
2011			
2012			

3 Which is heavier:

a 3 globes or a lock?
 b 2 locks or a torch?
 c 5 globes or 2 locks?
 d 2 candles or 3 locks?

How many Worms? \square

● Cartoons make mathematics more appealing.

● There are two lizards hidden on each page for students to find.

● The third section of each unit usually contains counting exercises in the border.



Unit Header Activities	3
ID Cards	4–5
Units	6–75
Multiple-choice Questions	76
Answers	A1–A12 (middle pages)



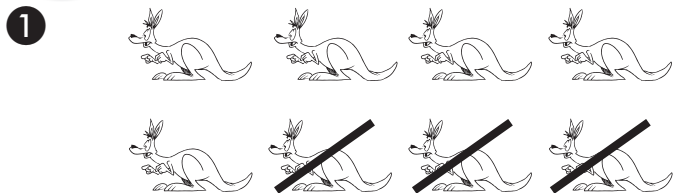
Unit Header Activities

1:1 Addition, $10 + 2$ (Q5)	1:2 Combinations to 10 (Q1)	1:3 Counting
2:1 Cut each item in half (Q1).	2:2 Subtraction from 10 (Q1)	2:3 Circle the parallel lines.
3:1 Position, 3rd from the left (Q4)	3:2 Addition, $5 + 5$ (Q2)	3:3 Addition, $5 + 4$
4:1 Colour half of this group	4:2 Time: o'clock (Q2)	4:3 Counting by 5s
5:1 Subtraction, $8 - 2$ (Q1)	5:2 Addition, $10 + 2$	5:3 Counting on, $7 + 3$
6:1 Subtraction, $8 - 5$	6:2 Weekdays	6:3 Patterns on a number line
7:1 Counting by 5s	7:2 Subtraction: difference (Q2)	7:3 Addition, $9 + 6 + 3$
8:1 Digital time, o'clock	8:2 4 groups of 3 (Q1, 2)	8:3 Circle half of the shapes.
9:1 2 groups of 4 (Q6)	9:2 Colour one quarter.	9:3 Halves
10:1 Subtraction, $7 - 3$ (Q5, 10)	10:2 Ordinal numbers	10:3 2D shapes
11:1 Multiplication, 4×2 (Q1)	11:2 3 groups of 3 (Q3)	11:3 Money: notes
12:1 Doubles (Q6)	12:2 Subtraction, $10 - 4$	12:3 Addition, $3 + 3 + 7$
13:1 Addition, $6 + 7$ (Q1)	13:2 3 groups of 3	13:3 Subtraction, $10 - 6 - 2$
14:1 Circle half of the group.	14:2 4 groups of 3	14:3 Trapeziums and kites
15:1 Multiplication, 3×4 (Q6)	15:2 What is on the right/left?	15:3 Digital time
16:1 Multiplication, 3×3	16:2 10 shared by 5 (Q1)	16:3 How many groups of 2?
17:1 Multiplication, 3 groups of 4	17:2 3 groups of 4 (Q2)	17:3 Number line addition
18:1 Adding multiples of 10 (Q8)	18:2 Months of the year	18:3 3 groups of 8
19:1 Subtraction, $9 - 3$ (Q2)	19:2 Position, 5th, 12th	19:3 Playing card suits, $4 + 4 + 4$
20:1 Estimate how many	20:2 Multiplication, 2×4	20:3 6 groups of 4
21:1 Money: recognising coins (Q3)	21:2 2 groups of 3	21:3 Addition, $5 + 5 + 5 + 5$
22:1 Division, 3 groups of 8 (Q5)	22:2 Multiplication, 5×3	22:3 Multiplication, 3×8
23:1 3D shapes: edges, corners?	23:2 Discussion of 3D objects (Q1)	23:3 Pattern of 2D shapes
24:1 Multiplication, 3×3 (Q1, 4)	24:2 3D objects: edges, corners?	24:3 3D objects (face, corners, edges)
25:1 Subtraction, $13 - 4$ (Q2)	25:2 Money: value of coins	25:3 Comparing mass
26:1 Subtraction, $10 - 3$	26:2 Counting by 2s, 14 lots of 2	26:3 Analogue time
27:1 Multiplication, 3×3 (Q1, 6)	27:2 Tallies	27:3 Identifying and adding coins
28:1 Multiplication, 4×2 (Q1)	28:2 Multiplication, 3×2 (Q1)	28:3 Addition, $10 + 10$
29:1 Counting on from 127	29:2 Grouping, 2s in 12	29:3 Identifying and adding coins
30:1 Multiplication, 5×3 (Q3)	30:2 Position: 5th, 12th (Q2)	30:3 Adding amounts of money
31:1 Addition, $8 + 6$	31:2 Groups of 5, ordinals	31:3 Money: \$5, \$10, \$20
32:1 Division $12 \div 2$ (Q1)	32:2 Flip, slide, turn	32:3 $3 + 5$, $5 + 3$, $8 - 3$, $8 - 5$
33:1 Multiplication, 3×4 (Q4)	33:2 Fraction shaded?	33:3 Flip, slide, slide, turn
34:1 Addition, $9 + 4$ (Q4)	34:2 Multiplication, 4×2	34:3 Fractions of a whole
35:1 Multiplication, 5×2 (Q3)	35:2 Left, right and middle	35:3 2D shapes

3:1

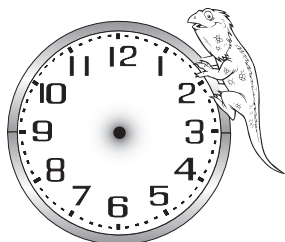


bones



8 - _____ = _____

2 On this clock show 7 o'clock.



3 Circle one half of the group.



4 Cross out the 9th flower.



5

5	1	3
+ 3	+ 6	+ 7
_____	_____	_____



Who is in the middle?

7 Draw a pair of parallel lines.

8 What is the time on each clock?

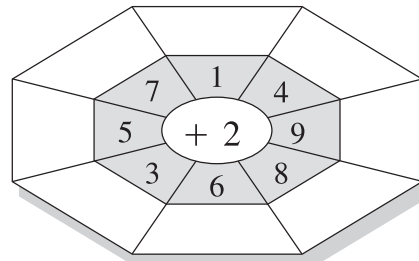
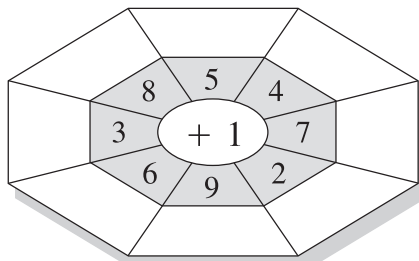


half past _____

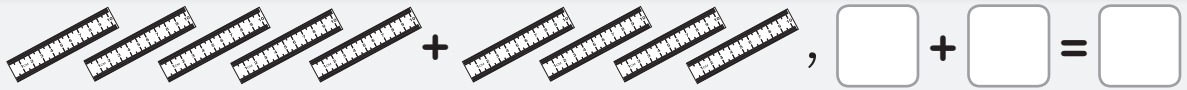


half past _____

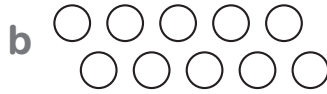
9 Complete each number web.



3:2



1 Colour half of each group of shapes.



2
$$\begin{array}{r} 5 \\ + 2 \\ \hline \end{array}$$

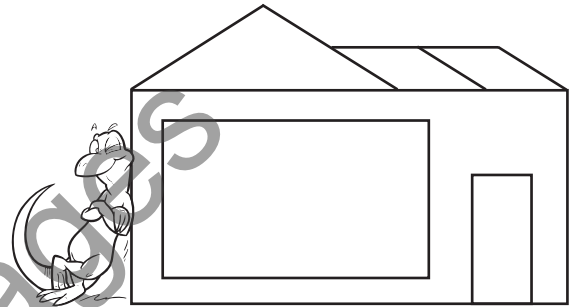
$$\begin{array}{r} 8 \\ + 2 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ + 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 5 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ + 3 \\ \hline \end{array}$$

3 Name the shapes used in the picture.



4 Draw a girl **inside** the house.

Draw a cat **near** the house.

3:3



1 Estimate how many:

a cups of milk are in a milk carton.

b cartons of milk would fill a bucket.

c cups of milk would fill a bucket.

2 How many cartons of milk would fill a bucket if a carton holds 4 cups of milk and 40 cups of milk fill a bucket? _____



How many butterflies?



1 Continue this pattern.
40, 45, 50, _____, _____

2 How many sides on each shape?



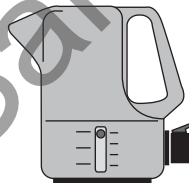
Draw 2 lines to cut each shape in quarters.

Colour one quarter of each.

3 $9 - 3 = \underline{\quad}$

$7 - 4 = \underline{\quad}$

4 Circle the object you would use to fill a bucket.

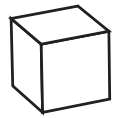
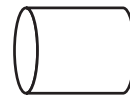


5 2, 4, 6, _____, 10, _____, 14

6 Name each coin.



7 Circle the shapes you can stack.



8 A B C D



Which holds the most?

9 Show the time on each clock.

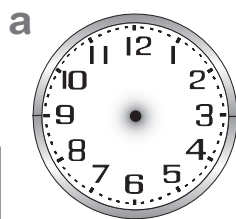


9 o'clock

9 : 00

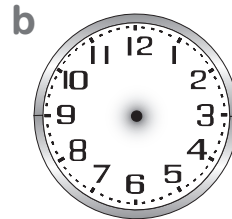


When it is o'clock, the big hand points to 12.



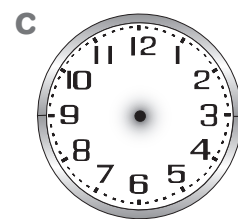
4 o'clock

4 : 00



6 o'clock

6 : 00



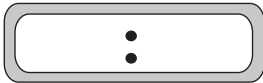
1 o'clock

1 : 00

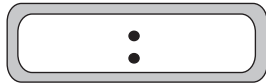
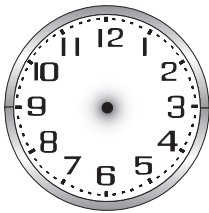


1 Write the number one more than: 67 _____ 49 _____ 60 _____

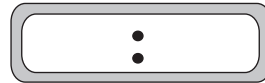
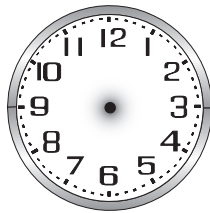
2 Show the times on these clocks:



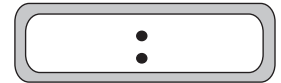
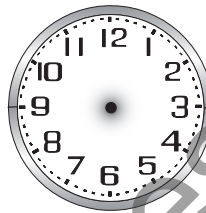
6 o'clock



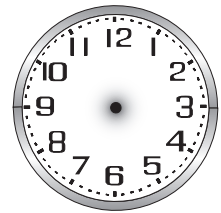
half past 3



4 thirty



half past 9



30, 35, 40, 45, 50, 55, 60, _____, _____, _____



1 a Count backwards by twos from 100.

100, _____, _____, _____, _____, _____

b Count backwards by tens from 100.

100, _____, _____, _____, _____, _____

c Count backwards by fives from 100.

100, _____, _____, _____, _____, _____

d Count backwards by twos from 79.

79, _____, _____, _____, _____, _____

e Count backwards by tens from 89.

89, _____, _____, _____, _____, _____

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
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

groups of ten dogs =

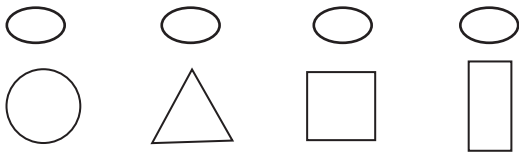
Multiple-choice Questions

Colour the oval next to the correct answer.

A What is the number that is one more than 40?

- 50 39
 31 41

B Which of these shapes is a square?

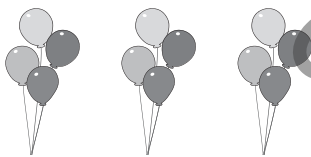


C Ice-blocks cost 50c each. How many can be bought for \$1.00?



- 2 4
 3 5

D These balloons show:



- 3 groups of 3
 4 groups of 3
 3 groups of 4
 4 groups of 4

E $19 - 4 = ?$

- 23 16
 15 14

F Which of these is less than 10?

- 16 6
 19 21

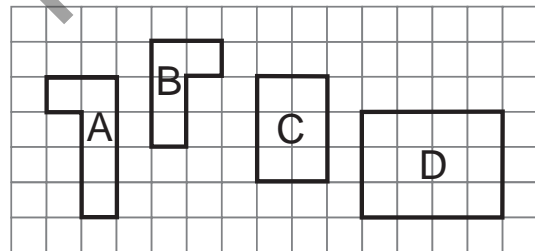
G The cloud is:



- below the bird
 above the bird
 to the right of the bird
 to the left of the bird

H Which number has a 2 in the tens place?

- 12 92
 29 263



Which shape covers the largest area?

- A C
 B D

J Sue had 5 lollies. She was given 6 more.

How many lollies does she have altogether?

- 56 10
 65 11

