Revised edition

New wave





PROBLEM-SOLVING

MONDAY

n=1 Dancing HHn

The number of Room 4 children who like going to the cinema is the same as the sum of which two activities?

and . Room 4 has 30 students. How many were not asked?_

TUESDAY

Using 2 green and 2 yellow, colour each box a different way.



WEDNESDAY

Use 3, 4, 5 and 9 to make 12 across and down.

THURSDAY

Which spinner is certain of landing on the sum of 7?



FRIDAY REVIEW



Share the ice-creams evenly between two boys.

How many per boy? _

Complete the fractions.



What is the perimeter?



This is a top view of which object?





What is the time?





THURSDAY

Which shape(s) are shaded



How many more 50c to



Name this 3D object.



Which book is standing vertically?



Tick the shapes with symmetry.





Eddy Krajcar and Lisa Tiivel

New wave mental maths revised edition

- Retains many of the bestselling features of **New wave mental maths**, with a range of added extras and new improvements, particularly in relation to problem-solving.
- Provides a 40-week, structured mental maths program linking to Australian Curriculum Mathematics, covering the strands of Number and Algebra, Measurement and Geometry, and Statistics and Probability.
- Provides daily practice of mental maths and problem-solving skills (10 daily questions for Book B; 15 daily guestions for Book C; and 20 daily guestions for Book D, Book E and Book F).
- Develops mathematical concepts and vocabulary sequentially, along with practice in speed of recall.

New features

- Modern and contemporary layout using subtle colours, which is not distracting or overwhelming for the student.
- A new 'Problem-solving' column in each week's unit of work.
- Problem-solving questions drawn from a mixture of strands and sub-strands, incorporating real-life maths contexts and situations.
- Problem-solving questions positioned in a separate column so teachers can use them flexibly: either for classwork or homework, or for a mental challenge before the maths daily lesson.
- Pictorial and written representatives of problems in both the problem-solving and daily columns.
- Maximum focus on maths concepts with the language and readability of guestions simplified.
- Includes new question types, with the removal of some of the previous ones, based on feedback, comments and observations from practising teachers.

Book B	Books C–F		
New 'Problem-solving' column with one carefully worded problem-solving question for each day.	New format using a 3-page weekly unit with the Friday review now moved into the main week's unit of work for ease of access.		
 Friday review is grouped by a strand icon (Number and Algebra, Measurement and Geometry, and Statistics and Probability) to assist with teacher assessment of student's ability. 	 New 'Problem-solving' column with two carefully worded problem-solving questions for each day. 		
	 Friday review is grouped by a strand icon (Number and Algebra, Measurement and Geometry, and Statistics and Probability) to assist with teacher assessment of student's ability. 		

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1. What is the time?



- **2.** 2 × 5 = ____ +
- 3. Does this shape match A, B, C or D?







- **5.** Alex caught eleven fish and gave three away. How many fish does Alex have now?
- 6. Group the shells into lots of 4.



How many lots are there? ___

$$4 \times$$
____ = 12 and $12 \div 4 =$ ____

- **7.** How many days are in a common year? _____
- 8. How many days are in a fortnight?
- 9. I am about _ _____ cm tall.
- is a top view of which object? ____ **10.** This













- **11.** 1 m = ____ cm
- **12.** 230, 220, 210, _____, 190
- **13.** 5 + 6 = 11, 11 ____ = 6
- **14.** $3 \times 6 = 18$, ____ $\div 3 = 6$
- **15.** (a) 80 + 30 = ___ (even) + (even) = even
 - (b) Is your answer even? ___
- **16.** Which stack of coins is greater than \$4?

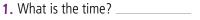








- **17.** Which stack of coins is equal to \$4? _____
- **18.** Which stack of coins is less than \$4?
- 19. What is the total of all the coins? \$_
- 20. Add stacks B and C. \$_

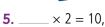












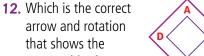


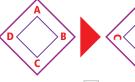




- 6. Take 100 away from:
 - (a) 392 ___
- (b) 405 _
- **7.** Write *one thousand, one hundred* as a numeral.
- **8.** How many days are in a week?
- **9.** Order from lowest to highest.

- **10.** 1 cm = _____ mm
- **11.** Colour one quarter of the shape.



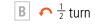


- A $\wedge \frac{1}{4}$ turn

that shows the

new position?









- **13.** 4 + 9 =
- (a) odd
 - (b) 12 13 14 15



- **14.** 2 m = ____ cm
- **15.** 689 = 600 + ___
- **16.** Which stack is less than \$2?









- **17.** Which stack is equal to \$5? ___
- **18.** Which stack is worth more than \$5? _____
- 19. Add stacks A and B. \$_
- 20. What is the total of all the coins? \$

1. Which clock time is closer to midnight?





2. 8 × 0 = ___

4. Write *nineteen hundred and nineteen* as a numeral.

5. 1050, _____, 850, 750, 650

$$2 \times 2 = 6, 6 \div 2 = 2$$

$$2 \times$$
____ = 6 and $6 \div 3 =$ ____

- **7.** (a) 12 + 10 = ____
 - (b) 22 + 10 =
- **8.** ____ + 9 = 12
- **9**. This \sqcup is a top view of which object? $_$





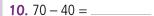






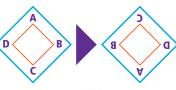






11. How many days are in a leap year? ___

- **12.** _____ hours = 1 day
- **13.** (a) 20 + 80 = _____
 - (b) 200 + 800 = ____
- **14.** 100 cm = _____ m
- **15.** Which is a season?
 - __ cyclone heatwave summer climate
- **16.** How many months are in a year? ___
- **17.** Which is the correct arrow and rotation that shows the new position? __

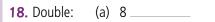












- (b) 80 ____
- **19.** 40 + 30 = _____
- **20.** 2032 = 2000 + _____

1. Which clock time is closer to midday?

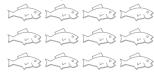




- **2.** 2 × 7 = ____ + ___ = __
- **3.** 100 30 = _____
- **4.** A fair single coin was tossed with the outcomes of head, tail, tail, tail. What will be the outcome of the next toss?
 - A tail.



- It is equally likely to be a head or tail.
- **5.** 32 ÷ 4 = ____
- **6.** ______, 1001, ______, 1021, 1031, 1041
- **7.** (a) 5 5 = 25
- (b) 100 4 = 25
- 8. Colour a quarter of the fish.



- **9.** 1 cm = _____ mm
- **10.** $18 \div 3 = 6$.

- **11.** (a) 16-6= _____ (b) 106-6= ____
- **12.** Colour the car on the left.





- **13.** 10 mm = ____ cm
- **14.** (a) 20 + 90 = _____ (b) 200 + 900 = ____
- **15.** _____ seconds = 1 minute
- **16.** This is a top view of which object? ___





- **17.** Halve:
- (a) 18 _____ (b) 180 ____
- **18.** Which line is 4 cm? _____

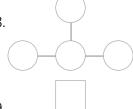


- **19.** 30 + 5 + 900 + 3000 = ____
- **20.** 300, ______, 280, 270, 260

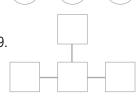
Monday

Make the numbers across and down total 12.

1. Use 3, 4, 5 and 8.



2. Use 2, 3, 7 and 9.



Tuesday

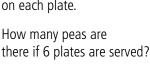
1. Natasha and Sonia read 9 books in a week. Sonia read twice as many books as Natasha.



How many books did Sonia read?



2. A chef plates 3 peas and 2 onion rings on each plate.



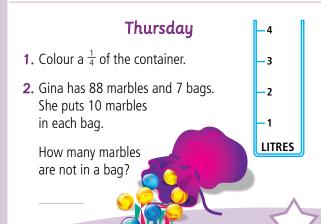


Wednesday

1. Tim has a counter on 59. He rolled a 4. Colour the number he landed on.



2. Tim had to move back 6 spaces on his second throw. Colour the number.



- 1 2 × 8 = ____
- **2** Write *one thousand* and ten as a numeral.
- **3** Take 100 away from 513.
- 4 Alex caught 11 fish and gave three to his mum and two to his dad. He gave the rest to his pet crocodile, Didda.

How many fish did Didda receive?

- 5 980, 960, 940
- 90 30 =
- $7 \ 21 \div 3 = 7, 3 \qquad 7 = 21$



8 Share the ice-creams evenly between two boys.

How many per boy? _____

9 Which stack of coins equals \$2?_





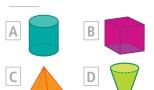


10 _ _, 1000,

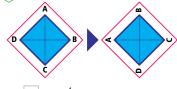
__, 1002, 1003

- **11** (a) 30 + 90 = _____
 - (b) even + even = ____
- (12) Halve 16. _____
- **13** 1010, ______, 1008, 1007, 1006

- 5 = 20
- **15** 500 + 20 + 5 = ____
- **16** 100 60 = _____
- 17 What is the time? 💪
- **18** How many days are in a common year?
- (19) 1 m = _____ cm
- **20** This is a top view of which object?



[21] Tick the correct rotation.



- $\uparrow \frac{1}{4}$ turn
- $\uparrow \frac{1}{2}$ turn
- **22** How many days are in one fortnight?
- **23** 1 cm = _____ mm
- 1 day = _____ hours
- **25** A fair single coin toss had the outcomes of tail, tail, tail. Anita said, 'The next toss has

Lara said, 'It's going to be a tail again'.

Hugo said, 'It could be either a head or a tail'.

Who is correct?

to be head'.





- 1. What is the time?
- 2. 8 lots of 2 =
- **3.** $5 \times 4 =$
 - 4 + ____ + ___ + ___ + ___
- **4.** Which is the odd number: 3, 4 or 10? ___
- **5.** Jakob has 16 cards. He equally shares them to 4 boys. Write a number sentence to show the number of cards for each boy.
 - ÷ ____ = ____
- 5 = 14
- 7. What is the number is between 1009 and 1011?
- **8.** Which shape(s) are coloured as $\frac{2}{4}$?











- **9.** Who is the youngest? _____
 - A Keif, born 14 May 2005.
 - B Chantelle, born 20 June 2006.
 - C Kiki, born 15 May 2005.
- **10.** Who is the oldest? _____
- 11. Name this shape.



- **12.** 3 cm =
 - □ 10 mm □ 20 mm □ 30 mm □ 40 mm
- **13.** Measure line \overline{AB} .
 - (a) _____ cm
- (b) _____ mm
- **14.** Summer, autumn, winter and _____ are the four seasons.
- **15.** How many days are in a common year? ___
- **16.** How many weeks are in a year? _____
- **17.** 207 10 = _____
- **18.** Write the number 10 less than one thousand.
- **19.** 6, 12, 18, 24, 30, 36, _____, 48
- **20.** (a) 68 + 10 = _____
 - (b) 668 + 10 =

1. Which clock time is closer to 6 pm?





2. $4 \times 7 =$

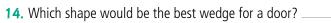
- 3. What number is ten more than 990?
- **4.** Using 3, 5, 2 and 8, make the:
 - (a) largest odd number.
 - (b) lowest even number.
- **5.** Lisa wanted to share 15 pieces of chocolate equally among three of her friends. How many pieces for each friend? Answer as a number sentence.
- **6.** (a) 30 ÷ 3 = _____
 - (b) $300 \div 3 =$
- **7.** 108 8 = _____
- **8.** Using 3, 5, 2 and 8, make the smallest number possible.
- **9.** Is **XXX** or **XYZ** a row? _____

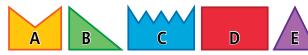


- **10.** $4 \times 3 = 2 \times$
- 11. Draw a line 4 cm long.



- **12.** 10 mm = ____ cm
- **13.** Name this shape.





- **15.** Halve:

- (a) 22 _____ (b) 220 ____

- 16. Double:
- (a) 7 _____ (b) 70 ____
- **17.** _____ seconds = one minute
- **18.** How many hours are in a day? _____
- **19.** 30 ÷ ____ = 5
- **20.** 100 cm = _____ m

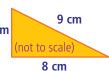
1. Which clock time is closer to 6 am?





2. If you eat 2 eggs from one dozen, how many are left?

3. The perimeter is _____ cm.



- **4.** (a) 97 10 = _____ (b) 97 + 10= __
- **5.** 5 × 3 = 3 + ____ + ___ + ___ = ___
- **6.** Emilie has 3 groups of flower petals, each with 4 petals. How many petals in total? (Write as a number sentence.)

_ × ____ = ____

- 7. How many months are in one year? _____
- **8.** $4 \times 10 = 40, 40 \div 10 =$
- **9.** $3 \times 8 = 24$, $\div 3 = 8$
- **10.** (a) 5 + 6 = _____ (b) 50 + 60 = ____
- **11.** A half =
- $\frac{1}{2}$
- $\frac{1}{10}$
- **12.** Write *nine thousand* and nine as a numeral.
- 13. How many children like plums?



14. Which fruit is the most popular?



- **15.** Which fruit is the least popular? _____
- **16.** Which is a quadrilateral?
 - ☐ a square ☐ a cube
- **17.** Double 17 = 10 + 7 + 10 + 7 = 20 + 14 = 34. double 18 = ____
- **18.** (a) 38 + 10 = ____
 - (b) 380 + 100 =
- 19. How many days are in one fortnight? _____
- **20.** (a) 30 + 90 = ____
 - (b) 300 + 900 =

1. What is the time? _____



- **2.** (a) 10 + 27 = _____
 - (b) 100 + 27 _____
- **3.** 2159 = 2000 + ____
- **4.** (a) 93 10 = ____ (b) 93 + 10 = ___
- **5.** $4 \times 7 = 28$, $28 \div$ __ = 7
- **6.** 3 × 8 = 8 + 8 + ____ = ___
- 7. Lucy has 6 groups of shells, with 3 in each. How many shells are there in total?

__ × ____ = ____

- **8.** $60 \div 6 = 10, 90 \div 9 =$
- **9**. 395 + 10 =
- **10.** A quarter =
 - $\frac{1}{4}$
- $\frac{1}{2}$ $\frac{1}{10}$ $\frac{1}{3}$
- 11. Which 2D shape has 5 sides?
 - pentagon hexagon square
- **12.** (a) 2 + 9 = _____ (b) 20 + 90 = ____
- **13.** Mila dropped a dozen eggs, and 5 cracked. How many are left? ____
- **14.** Label in the square.

A in the bottom left, B in the top right,

C in the top left and **D** in the bottom right.



- **15.** (a) 12 7 = ___
 - (b) 120 70 = ____

16. Measure line \overline{AB} with your ruler.



- (a) _____ cm
- (b) _____ mm
- **17.** Order from lowest to highest.

1

1 3

18. Which stack of coins is worth the least amount? ___









- **19.** Which stack is worth the most?
- **20.** What is the total sum of the coins? \$



FRANK'S	FRI	JIT	AND	VEG	
CASHIER	155	,			
ITEMS					
TOMATOES	5	kg	\$ L	15.00	
POTATOES	4	kg	\$]	2.00	
TOTAL: \$					
PAYMENT:					
DATE: SA	T 2		rzugi		
RECEIPT N		D FO		rurns	

Monday

- 1. The total of both items was \$
- **2.** What was the kilogram price of the tomatoes?

per kg



Tuesday

1. What was the kilogram price of the potatoes?

per kg



2. What was the date a week before the date on the receipt?

Wednesday

1. After leaving Frank's shop, Mr Murphy went to visit his grandmother. He arrived at midday.

How long since he left the shop?

hour(s) and _____ minute(s)

2. Mr Murphy goes to Frank's Fruit and Veg weekly. When is the next expected visit?

Thursday

1. Mr Murphy used a \$50 note and a \$20 note.

What was his change? \$_

2. The shopkeeper only had (12) and (22) coins in the till.

What is the smallest number of coins the shopkeeper could have given Mr Murphy as his change?

\$1_____

\$2



- 1 3 × 9
- 2 3 × 6 = 2 × _____
- $4 \times 0 =$ _____
- 80 ÷ ____ = 10 8 × _____ = 80
- **5** 34 10 = _____
- **6** 7 + 6 = _____, 70 + 60 = ____
- 8 What is the number between 2009 and 2011?
- $9 4 \times 9 = 36$

 $= \div 9 = 4$

- (10) Double 19. _____
- 11 3134 = 3000 + ____
- 12 Order from lowest to highest.

 $\frac{1}{3}$ $\frac{1}{4}$ $\frac{1}{2}$

- (13) Add 10 to 695. __
- [14] Which stack is worth the least amount?



В



15 What is the total of stacks B and C?

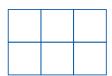


[16] What is the time?

- (17) How many days are in a leap year?
- 18 What is the perimeter?



- **19** Summer, _ winter and spring are the four seasons.
- 20 Label the:
 - (a) bottom right as **B**.
 - (b) top middle as **E**.
 - (c) top right \square as **Z**.



- 21 Using Wednesday's clocks, which is closer to midnight?
- [22] Is XYZ or YYY a column?

X	Υ	Z
 X	Υ	Z
X	Υ	Z

- 23 A hexagon has _____ sides.
- 24 A pentagon has _____
- **25** Using Wednesday's graph, how many children liked both mangoes and apples?







