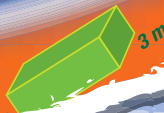
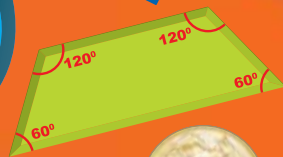


# New wave mental maths

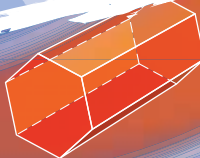
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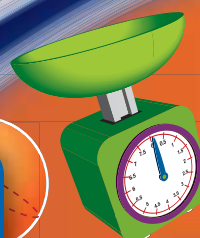
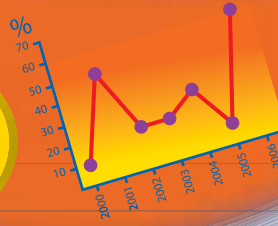
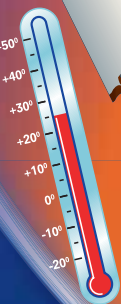
$$4^2 = 4 \times 4 = 16$$



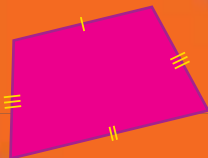
## Trial booklet



$$0.3 \times 9 = \square$$



$\frac{1}{4}$	0.25	25%
$\frac{1}{3}$	0.33	33%
$\frac{1}{2}$	0.5	50%
$\frac{3}{4}$	0.75	75%



Student's name: \_\_\_\_\_

*New wave mental maths* is a series of six student workbooks written for Australian primary schools.

Comprehensively revised in 2011 to take into account the requirements of the new national curriculum, *New wave mental maths* provides an ideal platform for the development of mental skills and mathematical concepts.

*New wave mental maths* provides:

- comprehensive coverage of mental mathematics concepts
- opportunities for consolidation of mathematical concepts
- practice in speed of recall
- opportunities for reinforcement of ongoing mathematical concepts
- sequential development of mathematical concepts
- a structured daily program for the whole year
- pictorial, graphic and written representation of problems
- an in-built review and assessment program (levels D–G).

Each level provides coverage of all mathematical strands applicable to mental mathematics activities.

A teachers manual, to accompany the *New wave mental maths* workbook, is also available. This contains suggestions to help develop mental strategies, a list of concepts covered, assessment and answers.

#### Books available in this series

New wave mental maths	Book B	RIC-1701	978-1-921750-00-7
New wave mental maths	Book C	RIC-1702	978-1-921750-01-4
New wave mental maths	Book D	RIC-1703	978-1-921750-02-1
New wave mental maths	Book E	RIC-1704	978-1-921750-03-8
New wave mental maths	Book F	RIC-1705	978-1-921750-04-5
New wave mental maths	Book G	RIC-1706	978-1-921750-05-2
New wave mental maths	Teachers guide	RIC-1707	978-1-921750-06-9

#### Australian School Age Levels

	A	B	C	D	E	F	G
AGES	5–6	6–7	7–8	8–9	9–10	10–11	11–12



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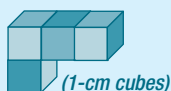
# STUDENT RECORD SHEET

Date	Date	Date	Date	Date	Date	Date	Date	Date	Date											
WEEK 1		WEEK 2		WEEK 3		WEEK 4		WEEK 5		WEEK 6		WEEK 7		WEEK 8		WEEK 9		WEEK 10		
M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.
W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.
F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F

Date	Date	Date	Date	Date	Date	Date	Date	Date	Date
WEEK 11	WEEK 12	WEEK 13	WEEK 14	WEEK 15	WEEK 16	WEEK 17	WEEK 18	WEEK 19	WEEK 20
M	M	M	M	M	M	M	M	M	M
Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.	Tu.
W	W	W	W	W	W	W	W	W	W
Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.	Th.
F	F	F	F	F	F	F	F	F	F

# MONDAY

1. What is the surface area?



2. 300, 30, 3, 0.3,

3. This has rotational symmetry to the order of:

1 ☐ 2 ☐ 3 ☐ or 4 ☐.



4. Round 4.83 to the nearest tenth.

5.  $8019 - 100 =$

6.  $\frac{1}{4} + \frac{1}{2} =$    $\frac{\quad}{4}$

7. Simplify  $14 \frac{14}{20}$

8. Write *half a million* in numerals.

9. Area =

 m<sup>2</sup>


10.  $32 < 4 \times 8$  ☐ true ☐ false

11.  $8 \times 9 =$

12. If  $70 + 80 = 30 \times f$ , then  $f =$  .

13. Rotate 450° clockwise

14. Subtract 110 000 from one million.

15.  $0.03 =$   %

16.  $\$20.00 - \$12.50 =$

17. Measure in millimetres the distance from A to B.

A

B

18.  $8 \times 8 = 4 \times 16 = 2 \times 32 =$

19.

What is the new price?

20. 3, 6, 30, 60, 300,

MY SCORE

# TUESDAY

1. *Wanna-B Diva* *Far Lap*



Which horse was faster at cross-country horse riding? How many seconds faster was it?

2.  $9998 + 8 =$

3. If you can ride your bike 6 km in 20 minutes, how far would you ride in 2 hours?

 km


4. Simplify  $15 \frac{15}{18}$

5. Write *one and a half million* in numerals.

6.  $10\,707 - 1000 =$

7. Round 4.77 to the nearest tenth.

8. A map's scale: 1 cm = 8 km. If Albany to Denmark measures 9.5 cm, the distance is .

9. Draw a reflection of the letter shapes.

sqz

10. What is the probability of picking the 8 of diamonds from a pack of 52 playing cards?

 out of 

11. How many \$50 banknotes make up \$1250?

12. The sum of 14 and 37 is .

13. What 2-D shape will the cross section be?



14.  $5 \overline{)890} =$

15.  $0.25 =$   %

16.  $a = \$100 \times 4$ ,  $b = \$50 \times 5$ ,  $c = \$20 \times 10$

$a + b + c = \$$

17. odd  $\times$  even =

18. Write  $43 \frac{43}{8}$  as a mixed number.

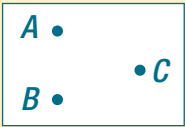

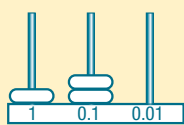
19.  $\$50.00 - \$11.75 =$

20.  $10\,019 - 1000 =$

MY SCORE

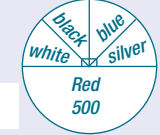
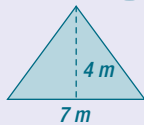

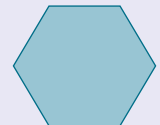



# WEDNESDAY

- What is the time if you add 15 minutes to 8.52?
- Magnet Mining's truck can carry 45 tonnes. The loader's bucket holds 9 t. How many scoops of ore does it take to fill the truck?
- $1 \div 10 = \frac{1}{10} = 0.\text{ } = \text{ } \%$
- Write *four-hundredths* as a decimal.
- $a = \$100 \times 9$ ,  $b = \$50 \times 7$ ,  
 $c = \$20 \times 9$ ,  $d = \$10 \times 12$   
 $a + b + c + d = \$$
- $6358 - 9 =$
- Round 3.62 to the nearest tenth.
- $\frac{2}{3} - \frac{1}{6} = \text{ } / \text{ } = \text{ } / \text{ }$
- Which is equally divisible by both 3 and 5:  
390 or 490?
- Label and draw arrows to show:  
*A to B is south*  
*C to B is south-west.* 
- $16 + 18 =$
- Draw a pair of parallel lines.
- In which century was the year 1152?
- How many \$20 banknotes make up \$1440?
- The product of 12 and 7 is .
- This angle is:   
☐  $0^\circ$  ☐  $180^\circ$  ☐  $360^\circ$
- $50 \times 9 = 100 \times 4.5 =$
- Adding 2 beads to each bar on the abacus = . 
- $1 > \frac{3}{4} > 0.5$  ☐ true ☐ false
- Write in ascending order.  
2, 0.02, 0.2, 0.22, 2.2, 2.22, 2.02


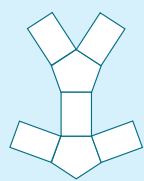
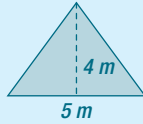
MY SCORE

# THURSDAY

- $7000 + 5000 + 6000 =$
- What was the total number surveyed?   
How many liked silver?   

- Area =   $\text{m}^2$  
- Double 46 750.
- Halve 30 750.
- If it is 9 pm, what will the time be in 28 hours?
- $7305 - 8 =$
- Which is equally divisible by 3 and 5:  
810 or 910?
- If  $10\,000 - 5000 = 1000 \times g$ ,  
then  $g =$  .
- Label the 2-D shapes.  
(a) rhombus (b) octagon  
(c) pentagon (d) kite (e) hexagon  

- $A = \$100 \times 7$ ,  $B = \$50 \times 9$ ,  $C = \$20 \times 7$   
 $A + B + C = \$$
- $0.09 < \frac{1}{2} > 0.03$  ☐ true ☐ false
- Write *one and a quarter million* as a numeral.
- Draw the lines of symmetry. 
- $\frac{3}{10} - \frac{1}{5} = \text{ } / \text{ }$
- $11 \times 7 =$
- What is the difference between 64 and 9?
- What is the probability of picking a king, queen or jack of hearts from a pack of 52 playing cards?  
 out of
- Write in descending order.  
3.13, 3.00, 0.3, 3.03, 0.33, 3.33,
- Show as a  $\frac{3}{4}$  turn anticlockwise. 

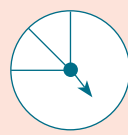







MY SCORE

# MONDAY

- $27 \div 3 =$
- $30 + 80 =$
- This has rotational symmetry to the order of . 
- Write in ascending order.  
7, 0.7, 0.07, 7.7, 7.17, 7.07
- Simplify  $\frac{6}{9}$
- Round 8.22 to the nearest tenth.
- This is a net for a . 
- $\frac{3}{4} + \frac{3}{4} =$    $\frac{1}{4} = 1$
- Area =   $\text{m}^2$  
- Write  $\frac{57}{10}$  as a mixed number.
- Silvio has two coins. One lands on heads, the other tails. What is the chance of this?  
  
(a) 0.2 (b) 0.25 (c) 0.5 (d) 1
- Write the number sentence: Mrs Wartnose has a \$20 banknote to pay for a \$6.40 cafe bill. What would be her change?
- , 9, 90, 900
- In 532 000, the place value of the 3 is .
- Write *eleven thousand* as a numeral.
- $\frac{3}{4} - \frac{1}{2} =$    $\frac{1}{4}$
- What measures the distance travelled in a car?  
☐ petrol gauge ☐ odometer  
☐ radiator ☐ speedometer
- If  $900 - 300 = p + 300$ , then  $p =$  .
- 1050 m =  km
- $17\ 000 - 9500 =$

MY SCORE

# TUESDAY

- $40 \div 5 =$
- $10^3 =$    $\times$    $\times$   =
- $9994 + 9 =$
- $4500 - 8 =$
- Label the spinner.  
*A is the same chance as B.*  
*C is a 75% chance.* 
- Round 7.11 to the nearest tenth.
- Adam Grilledcheese and Brett Pea both had a batting average of 30 runs over 3 innings. What was the total number of runs scored?
- What 2-D shape will you see in the cross-section?  
- $\frac{5}{6} - \frac{1}{3} =$    $\frac{1}{6}$
- Rotate  $180^\circ$  clockwise.  
- Halve 9.
- The starting number is .  
Halve the number, add 8, divide it by 4 and the answer is 7.
- A triangular pyramid has  vertices.
- What is the probability of picking a king, queen, jack or ace of diamonds from a pack of 52 playing cards?  out of
-    
- 1, 4, 9, 16, , 36
- $\$50.00 - \$35.40 =$
- Double 19 950.
- If a book has 72 pages, how many times would the numeral 5 appear in the page numbering?
- If  $800 - 500 = 100 \times p$ , then  $p =$  .
- Write in descending order.  
8, 8.8, 0.8, 0.08, 8.18, 8.08, 8.88

MY SCORE

# WEDNESDAY

1. Order these long jumpers from first to fourth.

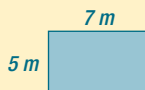
☐ Eddy ..... 6.45 m  
☐ Freddy ..... 5.86 m  
☐ Neddy ..... 6.06 m  
☐ Teddy ..... 6.60 m

2. Halve 41 900.

3.  $\frac{1}{2} + \frac{1}{4} = \frac{\quad}{4}$

4. Round 6.49 to the nearest tenth.

5. Area =  m<sup>2</sup>



6. Perimeter =  m

7. \$20 x  = \$480

8. 2903 - 7 =

9. A cuboid has  vertices.

10. What is the month prior to June?

11. 5 x 8 =

12. In 641 000, the value of 4 is .

13. Draw the line(s) of symmetry.



14. 10% = 0.

15. If it is 1 am, what time will it be in four and a quarter hours?

16. This 2-D shape is a .



17.  $2^3 = \square \times \square \times \square = \square$

18. 12 000 - 7000 =

19. 1.070 km =  m

20. 10 101 - 1000 =

MY SCORE

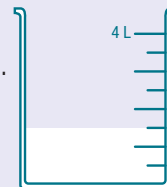
# THURSDAY

1. Place these swimmers in their correct finishing order.

☐ Oliver ..... 63.61      ☐ Rohan ..... 62.82  
☐ Malick .... 61.78      ☐ Alex ..... 59.99

2.  $10^4 = \square \times \square \times \square \times \square = \square$

3. A wizard has made 1.5 L of potion. He then makes 1 L more. Draw the new volume?



4.  $\frac{4}{5} - \frac{3}{10} = \frac{\quad}{10} = \frac{\quad}{2}$

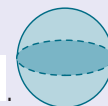
5. Round 3.94 to the nearest tenth.

6. 1 ha =  m<sup>2</sup>

7.  $2 + \frac{3}{10} + \frac{4}{100} = \frac{\quad}{100}$

8. Shane Corn and Simon Catfish both had a batting average of 40 runs over 4 innings. What was their total number of runs scored?

9. If  $15 \div 5 = p \div 10$ , then  $p = \square$ .



10. This 3-D shape is a .

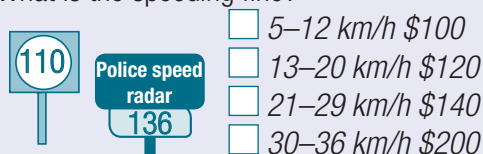
11. If you rode your bike 8 km in 20 minutes, how far would you ride in 1 hour?



12. Write *eleven thousand, one hundred and eleven* as a numeral.

13. 3 x 7 =

14. What is the speeding fine?



15. Does **A** have 1 or 2 lines of symmetry?

16. Which is even: 1209 or 990?

17. A number pattern starts at 19 and increases by 11s. What is the 10th number in the sequence?


18. \$50.00 - \$31.40 =

19. 14 000 - 3500 =

20.  $5 \overline{)480} = \square$

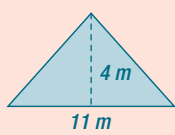
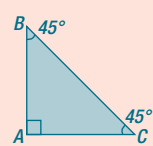

MY SCORE

# MONDAY

- What is the time if the long hand of a clock is on 10 and the short hand is between 10 and 11?
- $4 \times 1000 + 4 =$
- This angle is likely to be:  
☐  $45^\circ$    ☐  $135^\circ$    ☐  $180^\circ$ 

- $90 + 80 =$
- $1 \div 2 = \frac{1}{2} = 0.$
- Sage had two coins. Both landed on heads. What is the chance of this?   
 (a) 0.2   (b) 0.25   (c) 0.5   (d) 1
- If  $20 \div 4 = q \div 10$ , then  $q =$  .
- Round 9.96 to the nearest tenth.
- $16 + 19 =$
- $6111 - 10 =$
- Write the numeral that is *one hundred* more than *thirty-nine thousand and eleven*.
- Your teacher passes out a box of bananas to a group of 8 students. Each student has 5 bananas. How many bananas were in the box?
- Order from greatest to least. 0, -8, 4, 7, -3
- If  $45 - 10 = 5 \times k$ , then  $k =$  .
- To calculate  $4 \times 44$ :  
 (a) ☐ double 40 then + 4.  
 (b) ☐ double 44 and then double the answer.  
 (c) ☐ double 44 then + 44.
- In the number 44, the first 4 is greater than the second 4 by:  
 (a) ☐  $10x$    (b) ☐  $100x$    (c) ☐  $1x$
- Can a circle and triangle tessellate together?
- If it is 6 am, what time will it be in 20 hours?
- Are **b** and **d** congruent?
- $0.4 > \frac{1}{2}$    ☐ true   ☐ false

MY SCORE

# TUESDAY

- $13\ 000 - 7000 =$
- Area =   $m^2$ 

- $350 + 150 =$  ,  
 $3500 + 1500 =$
- In 252, the first 2 is greater than the second 2 by:  
 (a) ☐  $1x$    (b) ☐  $10x$    (c) ☐  $100x$    (d) ☐  $0x$
- In which century was the year 1378?
- $8 - \frac{2}{5} =$
- $55 \times 4 =$   
 (a) ☐  $2 \times 55 + 2$   
 (b) ☐  $2 \times 55 \times 2$   
 (c) ☐  $2 + 55 \times 2$
- Simplify  $\frac{16}{20}$
- A tap leaks at a rate of 1 L every half minute. How much water is lost after 5 minutes?
- Draw a reflection of the **pen**
- What is the angle size of a right angle?
- If  $32 \div 8 = 40 \div h$ , then  $h =$  .
- What is the sum of all the angles in  $\triangle ABC$ ? 

- An odometer is used to measure:  
☐ seconds passed.   ☐ kilometres travelled.  
☐ kilograms weighed.
- $1 \div 4 =$   /  = 0.
- Your generous teacher gave 6 students 4 lollies each. How many lollies were given out? Write the question as a number sentence.
- Double 9950.
- $7^2 =$
- Write  $\frac{34}{7}$  as a mixed number.
- If you can ride your bike 12 km in 20 minutes, how far would you ride in 1 hour?  
 km
 

MY SCORE



# WEDNESDAY

- $600 + 7000 + 40 =$
- $4777 - 9 =$
- If  $200 \div 10 = 4 \times u$ , then  $u =$  .

- Halve 560.

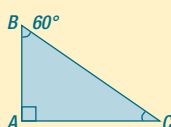
- Circle the heavier side.



- If a tap leaks at a rate of 1 L per half minute, how many litres are lost after 10 minutes?

- Round 10.43 to the nearest tenth.

- What is the value of  $\angle C$ ?



- $17 + 13 =$

- If 2 lines alongside each other never meet, they are  to each other.

- $8^2 =$

- This 3-D shape is a .



- The difference between 121 and 8 is .

- $1 \div 10 = \frac{1}{10} = 0.$

- 4.28

3.43

4.04

**A**                      **B**                      **C**

Eliza Emu beat Esther Emu by 21 seconds.

Which time is Eliza's?

Esther's?

- What is the probability of picking an ace or a king from a pack of 52 playing cards?  
 out of

- If a map has a scale of 1 cm = 10 km, how far is 4.2 cm?  km

- In 3235, the first 3 is greater than the second 3 by:

(a) ☐ 10x      (b) ☐ 100x      (c) ☐ 1000x

- $\$50.00 - \$43.60 =$

- $10 \text{ t} =$   kg

MY SCORE

# THURSDAY

- $80\,000 - 2500 =$

- If a tap leaks 0.5 L every half minute, how many litres are lost after half an hour?

- If  $40 \div 8 = 5 \times t$ , then  $t =$  .

- If it is 4 pm, what time will it be in 47 hours?

- $9981 - 8 =$

- Round 10.56 to the nearest tenth.

- $\frac{1}{2} + \frac{1}{4} =$    $\frac{\quad}{4}$

- $8 \times 6 =$

- Rank in ascending order. 1, 5, -3, 6, -4, 0, -2

- Rotate the shape 90° clockwise.



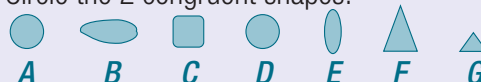
- In 8038, the first 8 is greater than the second 8 by:

(a) ☐ 1x                      (b) ☐ 10x  
(c) ☐ 100x                      (d) ☐ 1000x

- Double 275.

- $1 \div 5 =$    $\div$   = 0.2

- Circle the 2 congruent shapes.



- Write in ascending order.

3.3, 0.3, 0.33, 3.33, 3.13, 3.03

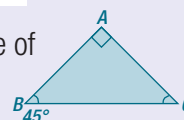
- Start at 99 and count by 9s. What is the 7th number in the sequence?

- What 2-D shape has 4 equal sides but is not a square?

- Write the number sentence. Mrs Wartnose spent \$8.40 at Cauldron's Cafe. What is her change from \$10?

- Simplify  $\frac{4}{12}$

- What is the value of  $\angle C$ ?



MY SCORE

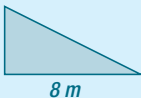
# MONDAY



- What is the time?
- $80 + 70 =$
- $9997 + 5 =$
- $8873 - 4 =$
- If you can ride your bike 11 km in 20 minutes, how far would you ride in 2 hours?



km

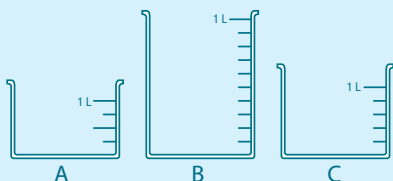


- Round 19.97 to the nearest tenth.
- $4 \overline{)900} =$
- $1 \div 100 = \frac{1}{100} = 0.$
- Area =   $m^2$  
- $450 + 150 =$    
 $4500 + 1500 =$
- Write *one hundred and ten thousand and eleven* as a numeral.



- Draw an arrow to show 5400 r.p.m.
- Draw an arrow to show 9600 r.p.m.
- $8 - \frac{4}{5} =$
- Halve a number, take away 7, add 3 and the answer is 11. The starting number is .

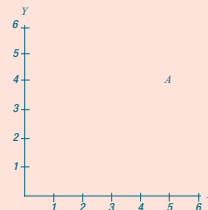
- 4, 8, 16, 32,
- Rotate  $180^\circ$  clockwise.  
- Which container is better to use if measuring 225 mL?

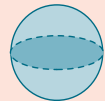


- $50 \times 60 =$
- $\frac{1}{3} + \frac{1}{2} =$    $\frac{\quad}{6}$

MY SCORE

# TUESDAY

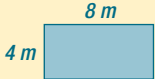


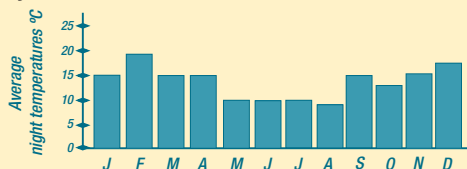
- What is the coordinate for A?  
 (5,6)  (4,5)  
 (5,4)  (6,5)
- $4 \overline{)232} =$
- $2974 - 9 =$
- Conor, a batsman, has an average of 20. On his sixth innings he scores 80 runs. What is his new average?
- $5 - \frac{3}{4} =$
- The sum of 9 and 7 is .
- 1.04 km =  m
- H has  lines of symmetry.
- $\frac{1}{2} - \frac{1}{4} =$    $\frac{\quad}{4}$
- This is a . 
- 12 000 kg =  t
- The rule is  $\times 12$ , so the next number is:  
(a) 5000 (b) 5183  
(c) 5184 (d) 5180  
3, 36, 432,
- Your teacher's vintage car is 80 years old. How many decades old is the car?
- What are the chances of picking a red card from a deck of 52 playing cards?  
 out of
- If it is 12 am, what time will it be in 25 hours?
- What form of money exchange is available from a post office?  
☐ envelopes  
☐ money order  
☐ parcels
- Double 750.
- Write  $\frac{85}{9}$  as a mixed number.
- $9^2 =$
- Simplify  $\frac{5}{20}$

MY SCORE

## WEDNESDAY

- Halve 71 900.
- $4000 - 2500 =$
- $4209 - 10 =$
- $9995 + 9 =$
- $\frac{2}{3} + \frac{2}{3} = \frac{\quad}{3}$
- Rashida has an average of 8 goals per game. During her 8th game she scores 24 goals. What is her new average?

- Round 19.03 to the nearest tenth.
- Area =   $m^2$  
- Which is equally divisible by 3 and 5: 855 or 875?

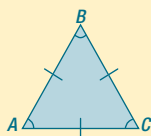


- Which month was the coldest?
- Which month was the warmest?
- Which months were below 15 °C?

- Between 1500 BC and the year 2000 AD there is  years difference.

- What is the angle size at:

A?  B?  C?



- $4 \overline{)496} =$

- This is a



- In 2412, the first 2 is greater than the second 2 by:

- (a) ☐ 1x (b) ☐ 10x (c) ☐ 100x  
(d) ☐ 30 (e) ☐ 1000x

- $2 \div 4 = \frac{\quad}{\quad} = \frac{\quad}{2} = 0.$

- $\$50.00 - \$18.75 =$

- To calculate  $4 \times 49$ :

- (a) ☐ double 49 and double the answer.  
(b) ☐  $4 \times 40 + 9$ .  
(c) ☐  $40 \times 4 + 9$ , then add 40.

MY SCORE

## THURSDAY

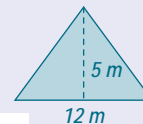
- Rusty's nursery had 100 orange trees at the start of the week.

Read the data and complete the table.

	M	T	W	T	F	S
Sales					24	
Balance	86	73	67	24	0	

- $10^5 =$    $\times$    $\times$    $\times$    $\times$    $=$

- Area =   $m^2$



- $9996 + 8 =$

- $8003 - 10 =$

- In 3483, the first 3 is greater than the second 3 by:

- (a) ☐ 1x (b) ☐ 3x  
(c) ☐ 1000x (d) ☐ 100x

- $12 \times 8 =$


- $12^2 =$

- The product of 6 and 8 is .

- Mark as an isosceles triangle.



Which two angles are equal?

-  What is the new price?

- One century =  years

- Write *ninety-two thousand, eight hundred and eleven* as a numeral.

- Rotate 90° anticlockwise.



- If it is 11 am, what time will it be 27 hours later?

- Is Z symmetrical?

- Simplify  $\frac{15}{18}$



- Double 39 950.



- $2 \div 6 =$

- $\$50.00 - \$24.75 =$

MY SCORE

# FRIDAY TEST WEEK 17

- What is the time if you add 15 minutes to 7.47 am?
- $10^5 =$
- $\$20.00 - \$18.50 =$
- $50 \times 7 =$  ,  $100 \times 3.5 =$
- $0.29 =$   %
- This has a rotational symmetry in the order of  
- If it is 1 am, in 20 hours it will be .
- If  $9 + 9 = 3 \times k$ , then  $k =$  .
- $5 \overline{)690} =$
-   
☐  $0^\circ$    ☐  $180^\circ$    ☐  $360^\circ$    ☐  $90^\circ$
- $1 > \frac{3}{10} > 0.1$    ☐ true   ☐ false
- If  $\uparrow$  is north, then  $\nwarrow$  is?
- How many \$50 notes make up \$2250
- Write  $7\frac{3}{4}$  as an improper fraction.
- At the annual emu race, Eliza beat Eddy Emu by 68 secs. Which time belongs to?  
Eliza  Eddy 

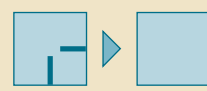
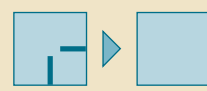
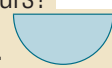
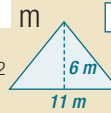

A	4.28
B	3.43
C	3.20
- One century =  years
- What is the difference between 35 and 9?
- Rotate  $450^\circ$  clockwise.  

- Draw the reflection. **gob**
- The chances of picking a king or queen from a pack of 52 playing cards is  out of .
- Draw the lines of symmetry. 
- $0.08 =$   %
- $12\,041 - 1000 =$
- Round 4.54 to the nearest tenth.
- New price = \$

SALE!  
25% off



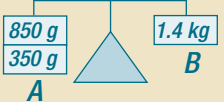
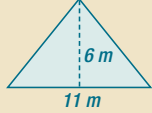

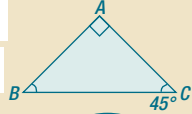
MY SCORE

# FRIDAY TEST WEEK 18

- $21 \div 3 =$
- , 5, 50, 500
- In 526 217, what is the place value of the 6?  
 
- Rotate  $270^\circ$  clockwise. 
- What are the chances of picking a red card from a deck of 52 playing cards?  
 out of
- A book has 42 pages. How many times will 3 appear in the numbering?
- One-fifth of  $\frac{3}{4}$  of a million is?
- A triangular prism has  vertices.
- Write a number sentence: Your teacher gives out 2 pencils each to a class of 24. How many pencils?
- Double 29 950.
- $27\,064 - 9 =$
- Halve 31 900.
- If it is 4 pm, what time is it in 50 hours?
- This shape is a  
- A bike sped by at 101 km/h. What is the speeding fine?  
☐ 5–10 km/h \$100   ☐ 11–20 km/h \$200   ☐ 21–30 km/h \$300
- Starting at 17 and counting up by 11s, what is the 7th number in the sequence?
- $3 \times 7 =$
- 49, 36, 25, , 9, 4, 1
- Write in descending order.  
8.08, 0.88, 0.8, 8, 0.08, 8.80
- Place these long jumpers in their correct position.  
☐ Eddy..... 7.01 m  
☐ Freddy... 7.10 m  
☐ Neddy.... 5.85 m  
☐ Teddy .... 6.10 m
- $1.04 \text{ km} =$   m
- Area =   $\text{m}^2$  
- A square-based pyramid has  edges. 
- If you ride your bike 7 km in 20 minutes, how far will you ride in one hour?  km
- Does **W** have one or two lines of symmetry?


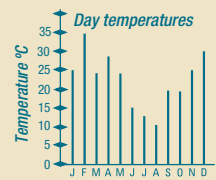

MY SCORE

# FRIDAY TEST WEEK 19

- $60\,000 - 2500 =$
- $\frac{1}{2} + \frac{1}{4} =$    $\frac{\quad}{4}$
- $6 \times 8 =$
- $\frac{5}{100} = 0.\text{ } =$   %
- In which century was the year 1279?
- Is 215 divisible by 5? yes ☐ no ☐
- Are **b** and **d** congruent? yes ☐ no ☐
- Shade the lighter side. 
- Taj has an average (mean) of 60 runs per innings after 3 cricket games. If he scores 120 runs on his 4th innings, what is the new mean?
- Write as a number sentence: Your teacher gives 32 apples to 8 students. How many apples per student?
- $0.4 < \frac{1}{2}$  ☐ true ☐ false
- Double 285.
- $80 + 70 =$
- If  $30 \div 5 = p \times 1$ , then  $p =$
- Halve a number, divide by 3, add 4 and the answer is 6. What is the starting number?
- A map has a scale of 1 cm = 10 km.  
How far is 5.6 cm on the map?  km
- In 7173, the 1st 7 is greater than the 2nd by:  
(a) ☐  $\times 10$  (b) ☐  $\times 100$  (c) ☐  $\times 1000$
- $\$50.00 - \$42.60 =$
- The area of the triangle is   $\text{m}^2$ . 
- $350 + 250 =$    
 $3500 + 2500 =$
- What type of triangle is this? ☐ equilateral ☐ isosceles ☐ scalene 
- Start at 99 and counting up by 8s.  
What is the fifth number?
- What is the size of  $\angle B$ ?  
- $19 + 15 =$
- $10\text{ t} =$   kg

MY SCORE

# FRIDAY TEST WEEK 20

- Halve 81 900.
- $0.6 < 0.08$  ☐ true ☐ false
- $4 \overline{)180} =$
- $\frac{3}{4} + \frac{3}{4} =$    $\frac{\quad}{4}$
- The chance of heads with a coin toss is:   
a) 0.4 b) 0.25 c) 0.5 d) 0
- $1 \div 4 =$
- $2^3 =$
- $\frac{4}{10} = 0.\text{ } =$   %
- Rotate  $90^\circ$  clockwise on its point. 
- What are the chances of picking a 3, 5, 7 or 9 from a pack of 52 playing cards?  
 out of
- $12 \times 6 =$
- To calculate  $4 \times 72$ :  
(a) ☐  $72 + 4 \times 2$   
(b) ☐ double 72, and double the answer  
(c) ☐ double  $72 + 72$
- $10^2 =$
- Is **N** symmetrical? yes ☐ no ☐
- If it is 7 am, what will it be in 23 hours?
- $2\% = 0.\text{ } =$
- 3, 6, 12, 24,
- Alicia had an average of 4 goals.  
During her 3rd hockey game, she scored nil.  
What is her new average?
- $15\,000\text{ kg} =$   t
- Write  $4\frac{3}{6}$  as an improper fraction.
- Which month is the hottest?  
- Which month is the coldest?
- What do the letters on the bottom represent?
- If you rode your bike 9 km in 20 minutes, how far would you ride in one hour?  km
- Draw an arrow to show 3800 r.p.m. 

MY SCORE



WEEK 17



MONDAY

1. 18
2. 0.03
3. 3
4. 4.8
5. 7919
6.  $\frac{3}{4}$
7.  $\frac{7}{10}$
8. 500 000
9. 27
10. false
11. 72
12. 5
13. 
14. 890 000
15. 3%
16. \$7.50
17. 58 mm
18. 64
19. \$1.50
20. 600

TUESDAY

1. Wanna B Diva 64 sec.
2. 10 006
3. 36 km
4.  $\frac{5}{6}$
5. 1 500 000
6. 9707
7. 4.80
8. 76 km
9. spz
10. 1 in 52
11. 25
12. 51
13. circle
14. 178
15. 25%
16. \$850
17. even
18.  $5\frac{3}{8}$
19. \$38.25
20. 9019

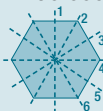
WEDNESDAY


1. 9.07
2. 5
3. 0.1, 10%
4. 0.04
5. 1550
6. 6349
7. 3.6
8.  $\frac{3}{6} = \frac{1}{2}$
9. 390
10. 
11. 34
12. 
13. 12th
14. 72

15. 84
16.  $180^\circ$
17. 450
18. 3.42
19. true
20. 0.02, 0.2, 0.22, 2.02, 2.2, 2.22

THURSDAY

1. 18 000
2. 1000, 125
3. 14
4. 93 500
5. 15 375
6. 1 am (next day)
7. 7297
8. 810
9. 5
10. 1 (c), 2(e), 3 (d)
11. \$1290
12. true
13. 1 250 000



- 14.
15.  $\frac{1}{10}$
16. 77
17. 55
18. 3 out of 52
19. 3.33, 3.13, 3.03, 3.00, 0.33, 0.3
20. 

FRIDAY



1. 8.02
2. 100 000
3. \$1.50
4. 350, 350
5. 29%
6. 8
7. 9 pm
8. 6
9. 138
10.  $180^\circ$
11. true
12. north-west
13. 45
14.  $3\frac{1}{4}$
15. Eliza C Eddy A
16. 100
17. 26
18. 
19. dog
20. 8 out of 52 or 2 in 13
21. 
22. 8%
23. 11 041
24. 4.5
25. \$3

WEEK 18

MONDAY

1. 9
2. 110
3. 8
4. 0.07, 0.7, 7, 7.07, 7.17, 7.7
5.  $\frac{2}{3}$
6. 8.2
7. pentagonal prism
8.  $\frac{6}{4} = 1\frac{2}{4} = 1\frac{1}{2}$
9. 10
10.  $5\frac{7}{10}$
11. c) (0.5)
12. \$20 - \$6.40 = \$13.60
13. 0.9
14. 10 000
15. 11 000
16.  $\frac{1}{4}$
17. odometer
18. 300
19. 1.05 km
20. 7500

TUESDAY

1. 8
2.  $10 \times 10 \times 10 = 1000$
3. 10 003
4. 4492
5. 
6. 7.1
7. 180
8. rectangle
9.  $\frac{3}{6}$
10. 
11. 4.5
12. 40
13. 4
14. 4 out of 52 or 1 out of 13
15. 25
16. \$14.60
17. 39900
18. 17
19. 3
20. 8.88, 8.8, 8.18, 8.08, 8, 0.8, 0.08


WEDNESDAY

1. T = 1, E = 2, N = 3, F = 4
2. 20 950
3.  $\frac{3}{4}$
4. 6.5
5. 35
6. 24
7. 24
8. 2896
9. 8
10. May
11. 40
12. 40 000



- 13.
14. 0.1
15. 5.15 am
16. semicircles
17.  $2 \times 2 \times 2 = 8$
18. 5000
19. 1070 m
20. 9101

THURSDAY

1. A = 1, M = 2, R = 3, O = 4
2.  $10 \times 10 \times 10 \times 10 = 10\ 000$
3. 
4.  $8\frac{-3}{10} = 5\frac{7}{10} = 1\frac{1}{2}$
5. 3.9
6. 10 000
7. 2.34
8. 320
9. 30
10. sphere
11. 24 km
12. 11 111
13. 21
14. \$140
15. 1
16. 990
17. 118
18. \$18.60
19. 10 500
20. 96

FRIDAY

1. 7
2. 0.5
3. 1000
4. 
5. 26 out of 52 or 1 in 2 or even
6. 13
7. 150 000
8. 6
9.  $2 \times 24 = 48$
10. 59 900
11. 27 055
12. 15 950
13. 6 pm
14. semicircle
15. \$300
16. 83
17. 21
18. 16
19. 8.80, 8.08, 8, 0.88, 0.8, 0.08
20. F = 1, E = 2, T = 3, N = 4
21. 1040 m
22. 33

23. 8
24. 21
25. 1

WEEK 19

MONDAY

1. 10.50
2. 4004
3.  $135^\circ$
4. 170
5. 0.5
6. b) (0.25)
7. 50
8. 10.0
9. 35
10. 6101
11. 39 111
12. 40
13. 7, 4, 0, -3, -8
14. 7
15. (b)
16. (a)
17. no
18. 2 am
19. yes
20. false

TUESDAY

1. 6000
2.  $22\text{ m}^2$
3. 500, 5000
4. (c)
5. 14th
6.  $7\frac{3}{5}$
7. (b)
8.  $\frac{4}{5}$
9. 10 L
10. n9q
11.  $90^\circ$
12. 10
13. 180
14. kilometres
15.  $\frac{1}{4} = 0.25$
16.  $6 \times 4 = 24$
17. 19 900
18. 49
19.  $4\frac{6}{7}$
20. 36

WEDNESDAY

1. 7640
2. 4768
3. 5
4. 280
5. A
6. 20
7. 10.4
8.  $30^\circ$
9. 30
10. parallel
11. 64

12. hemisphere
13. 113
14. 0.1
15. Eliza B Esther C
16. 8 out of 52 or 2 out of 13
17. 42 km
18. b
19. \$6.40
20. 10 000 kg

#### THURSDAY

1. 77 500
2. 30
3. 1
4. 3 pm
5. 9973
6. 10.6
7.  $\frac{3}{4}$
8. 48
9. -4, -3, -2, 0, 1, 5, 6
- 10.
11. D
12. 550
13.  $\frac{1}{5}$
14. A and D
15. 0.3, 0.33, 3.03, 3.13, 3.3, 3.33
16. 153
17. rhombus
18. \$10 - \$8.40 = \$1.60
19.  $\frac{1}{3}$
20. 45°

#### FRIDAY

1. 57 500
2.  $\frac{3}{4}$
3. 48
4. 0.05, 5%
5. 13th
6. yes
7. yes
8. (a)
9. 75
10.  $32 \div 8 = 4$
11. true
12. 570
13. 150
14. 6
15. 12
16. 56 km
17. (b)
18. \$7.40
19. 33 m<sup>2</sup>
20. 600, 6000
21. isosceles
22. 131
23. 45°
24. 34
25. 10 000

#### WEEK 20

#### MONDAY

1. 4.55
2. 150
3. 10 002
4. 8869
5. 66
6. 20.0
7. 225
8. 0.01
9. 20 m<sup>2</sup>
10. 600, 6000
11. 110 011



12.



13.

14.  $7\frac{1}{5}$

15. 30

16. 64

17.

18. (b)

19. 3000

20.  $\frac{5}{6}$

#### TUESDAY

1. 5,4
2. 58
3. 2965
4. 30
5.  $4\frac{1}{4}$
6. 16
7. 1040 m
8. 2
9.  $\frac{1}{4}$
10. sphere
11. 12 t
12. c 5184
13. 8
14. 26 in 52 or 1 in 2
15. 1 am
16. money order
17. 1500
18.  $9\frac{4}{9}$
19. 81
20.  $\frac{1}{4}$

#### WEDNESDAY

1. 35 950
2. 1500
3. 4199
4. 10 004
5.  $\frac{4}{3}$  or  $1\frac{1}{3}$
6. 10
7. 19.00
8. 32 m<sup>2</sup>
9. 855

10. August
11. February
12. May, June, July, August, October
13. 3500
14. 60° at A, B and C.
15. 124
16. square pyramid
17. (e)
18.  $\frac{2}{4} = \frac{1}{2} = 0.5$
19. \$31.25
20. a

#### THURSDAY

- |       | M  | T  | W | T  |
|-------|----|----|---|----|
| Sales | 14 | 13 | 6 | 43 |
- 1.
  2.  $10 \times 10 \times 10 \times 10 \times 10 = 100\,000$
  3. 30
  4. 10 004
  5. 7993
  6. (c)
  7. 96
  8. 144
  9. 48
  10. A and C
  11. \$99
  12. 100
  13. 92811
  - 14.
  15. 2 pm
  16. no
  17.  $\frac{5}{6}$
  18. 79 900
  19.  $\frac{2}{6} = \frac{1}{3}$
  20. \$25.25



#### FRIDAY

1. 40 950
2. false
3. 45
4.  $12\frac{1}{4}$
5. c) (0.5)
6.  $\frac{1}{4}$
7. 8
8. 0.4, 40%
- 9.
10. 16 out of 52 or 4 out of 13
11. 72
12. (b)
13. 100
14. no
15. 6 am
16. 0.02
17. 48
18. 3
19. 15 t
20.  $\frac{27}{6}$
21. February

22. August
23. months of year
24. 27



25.

New **full-colour** revised edition

# New wave mental maths



New wave mental maths will sit comfortably with any mathematics program. Day-by-day activities cover all mathematics strands and are developmental throughout each book and the series. Supported by a weekly testing program (Levels D-G), New wave mental maths is the complete mental mathematics resource at the right price.

Incorporating new national curriculum requirements

## How New wave mental maths works

Comprehensive coverage of mental mathematics concept

Student assessment is done at the end of the week in Levels B-C.

New wave mental maths is more than a workbook! Each workbook contains useful maths facts for students to refer to.

### Legend

Number and Algebra

Measurement and Geometry

Statistics and Probability

**1**

**WEDNESDAY**

- Draw clock hands to show 4.50.
- $490 + 340 =$
- Complete the number line.
- $16 \div 4 = 2$ , so  $4 \times 2 =$
- Area ( $l \times w$ ) =  $12 \times 8 =$
- $\frac{1}{2} =$  (a)  $\frac{1}{2}$  (b)  $\frac{1}{4}$  (c)  $\frac{1}{8}$  (d)  $\frac{1}{16}$
- $\frac{1}{2} \times 10 =$
- Is this angle likely to be  $45^\circ$  or  $115^\circ$ ?
- 1.11 km = m
- Write  $\frac{3}{4}$  as an improper fraction.
- If a plane is travelling from Perth to Adelaide, in which direction is it travelling?
- 4.00 pm  $\rightarrow$  2.00 am  
What is the time difference?
- $13 + 17 =$
- $4 \times 7 = 28$ ,  $8 \times 7 = 56$ ,  $16 \times 7 =$
- In 23 000 the meaning of 2 is 20 000. Its place value is:  $\square$  1000  $\square$  10 000.
- $54 \div 6 =$
- Simplify  $\frac{1}{2}$ .
- What is the probability of picking a Jack from a pack of 52 playing cards?
- 9995, 9997, 9999.

**THURSDAY**

- Draw clock hands to show 3.05.
- $10\% = \frac{1}{10} =$
- Area ( $l \times w$ ) =  $12 \times 8 =$
- For Question 3, the perimeter = m.
- $0.565 \times 10 =$
- $\frac{1}{2} \times 10 =$
- $200 - 39 =$
- If a plum weighs about 50 g, how many plums would be in a 1-kg bag?
- The sum of 8 and 7 is
- Draw a reflection of the letter shape.
- $87 + 49 =$
- Which 2 equations are true?  
(a)  $5 \times 9 = 40$   
(b)  $16 \div 6 = 45$   
(c)  $36 \div 4 = 9$   
(d)  $180 \div 4 = 9$
- odd  $\div$  odd =
- $50 \times 40 =$
- On a compass rose, what direction is this?
- What is the time difference?  
6.15 pm  $\rightarrow$  3.00 am
- If the ratio of boys to girls is 2:1, how many boys are there if there are 5 girls?
- $-52 \div 140 =$
- $-3$  (negative 3) greater than ( $>$ ) or less than ( $<$ ) 17
- Use the abacus to show 3.054.

**Week 11**

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## Sample pages from Book D

**2**

**MATHS FACTS**

**3**

**FRIDAY TEST WEEK 29**

**FRIDAY TEST WEEK 30**

Useful maths reference included in each workbook.

Weekly testing included in Levels D-G.

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Written to support all levels of New wave mental maths, the teachers guide provides background information and support to allow the smooth operation of the program in the classroom.

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- assessment strategies
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Student name: \_\_\_\_\_

Concept: \_\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

Comment: \_\_\_\_\_

Concept: \_\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

Comment: \_\_\_\_\_

Concept: \_\_\_\_\_ Date: \_\_\_\_\_ Score: \_\_\_\_\_

Comment: \_\_\_\_\_

**At the heart of NEW WAVE MENTAL MATHS**

Rather than focus purely on number concepts as do many traditional mental mathematics programs, New wave mental maths provides a comprehensive mental mathematics program, with the emphasis on mathematics. As such, besides being a solid foundation in number concepts, students are also engaged in:

**Algebra:** Order and Sequence, Measurement and Data and Chance concepts.

New wave mental maths is a series which provides repetitive practice of the heart of mathematics, the mental skills and the mental processes in specific concepts. In addition, each student receives an ongoing record of their daily progress in the student record sheet. Each student receives a set of 100 mental maths cards. At the end of each week, the teacher will select a set of 10 cards to be used for a 'heating pot' test. This 'heating pot' test will be used to assess the student's understanding of the concepts. The teacher will be able to see the student's progress in the 'heating pot' test. This 'heating pot' test will be used to assess the student's understanding of the concepts. The teacher will be able to see the student's progress in the 'heating pot' test.

**4**

**STUDENT RECORD SHEET**

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Mon																				
Tue																				
Wed																				
Thu																				
Fri																				

Student record sheet

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