FOREWORD

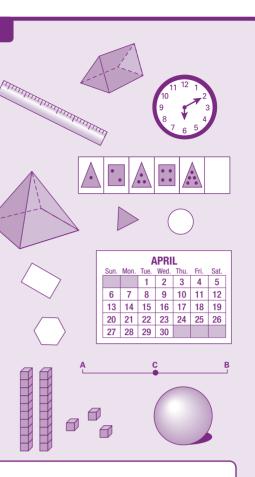
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New wave mental maths is a series of student workbooks, written to provide a comprehensive and structured daily mental maths program for students in Australian primary schools.

It has been revised to incorporate the requirements of the Australian maths curriculum and is designed to:

- encourage and develop students' mental calculation concepts and skills
- develop and reinforce students' problem-solving strategies
- · develop and maintain students' speed of recall
- introduce students to, and help them practise and understand, a range of mathematics vocabulary.

Assessment activities are provided for students to assess, monitor and record their own performance on a weekly basis. A separate teachers manual is available that accompanies the **New wave mental maths** series. This manual contains guidelines to help develop mental strategies, suggestions for classroom use, assessment tools, a list of the concepts developed and answers.



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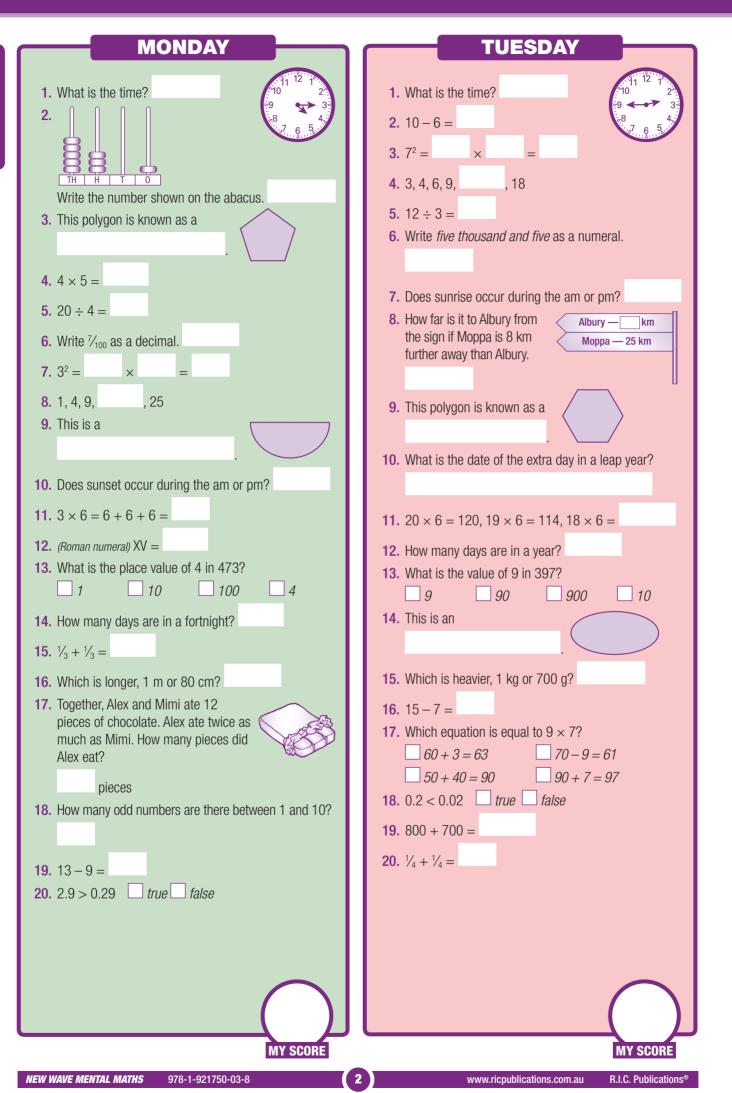
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| WEDNESDAY | THURSDAY |
|---|---|
| 1. Add half an hour to this time. 2.35 | 1. Add 30 minutes to this time. 11.40 . |
| 2. 0.6 + 0.4 = | 2. What is the area of a 6 by 4 grid? |
| 3. 900 + 800 = | squares |
| 4. 15 5 = 3 | 3. What is the cost of $4\frac{1}{2}$ kg of grapes if they are priced |
| 5. If a super fast train travels at 400 km per hour and a journey from Brisbane to Sydney is a distance of 1200 km, how long will the journey take? | at \$3.00 per kg? 4. The time difference is: 6 hours. 12 hours. 8.30 am 8.30 pm |
| 6. Write the missing factor of 30. | 18 hours. 36 hours. 21 March 22 March |
| 1, 2, 3, 5,, 10, 15, 30 | 5. 0.5 + 0.8 = |
| 7. (Roman numeral) XLV = | 6. Draw a horizontal line. |
| 8. Round 16.9 to the nearest whole number. | |
| 9. What is the chance of picking a king from a deck of | |
| 52 playing cards? | 7. 300 + 800 = |
| 10. This is a $\sqrt{2}$ | 8. 2012 2012 = 1 |
| | 9. 55 mm = □ 550 cm □ 5.5 cm □ 505 cm □ 505 cm |
| 11. If a bus left Gateshead at 6 am and arrived in | 10. Which 3-D shape will best pack easily (tessellate) in |
| Borough at 11 pm, how long was the journey? | a box? |
| | 11. If odd \times even = even, does $6 \times 7 = 41$ or 42 ? |
| 12. How many tenths make up two wholes? | 12. $2 - 0.2 = $, $2 - 0.02 =$ |
| 13. How much change will you receive from \$20 if you use it to buy a toy that costs \$16.40? | 13. If you bought a comic book worth \$8.60, what change would you receive from \$20? |
| 14. 2400 g = 24 kg 204 kg | 14. Show as a $\frac{1}{2}$ turn clockwise. |
| <i>2.4 kg 240 kg</i> 15. 25 = 4 × 6 | |
| 6. $\frac{1}{4} = 0.25$, so $\frac{2}{4}$ or $\frac{1}{2} = \frac{1}{2}$. | |
| 17. 6 × 9 = , 60 × 9 = | 15. 1, 2, 4, 7, 11, |
| 8. What is the cost of $2\frac{1}{2}$ kg of tomatoes at | 16. Round 16.9 to the nearest whole number. |
| \$1.50 per kg? | 17. How many fifths make up three wholes?18. Share \$20.00 equally among 8 people. |
| 9. If $9 \times 9 = 81$ (odd × odd = odd), | s each |
| does $11 \times 11 = 121$ or 122 (odd or even)? | 19. $6)\overline{84} =$ |
| | 20. What is the chance of $\begin{bmatrix} 1 \\ 6 \end{bmatrix}$ |
| 20. $\frac{1}{4} < 0.75$ \Box true \Box false | the pointer landing on an odd number? |
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| WEDNESDAY | THURSDAY |
|---|---|
| 1. What was the time | 1. What was the time 9.35 . |
| three-quarters of an hour | 45 minutes before? |
| | 2. Is a DVD symmetrical? yes no |
| 2. 94 + 10 = | Shade approximately 60% of this DVD. |
| 3. 1003 – 9 = | 3. What is the area of a 6 by 8 grid? squares |
| 4. Double 15. Halve 15. | 4. Look at the chair's |
| 5. Draw a reflection of: | shadow. Write L in one |
| LG | of the to indicate the A C C Ight source creating the |
| 6. 4)92 = | shadow. |
| 7. 4.6 kg = g | 5. Double 1.7. |
| 8. Write twenty-eight thousand, nine hundred and | |
| <i>fifteen</i> as a numeral. | 6. 8.7 m = cm |
| | 7. 100 000 - 1000 = |
| 9. 62 + 32 = | 8. How many people support Vic. Park? Favourite footy team |
| 10. If 1 is north, then 🗡 is | Ascot Vic. Park |
| | Kensington? |
| 11. Complete the magic square. 8 | |
| 5 | 9. Round $3\frac{3}{7}$ to the nearest whole. |
| 4 2 | 10. Draw a reflection of: |
| 12. The population of Cairns is 149 326. | BC |
| <i>Population</i> means: <i>the amount of pops living in a town.</i> | 11. If you were halfway from the sign |
| the map reference. | to Albany, how many kilometres |
| the number of people living in a town. | would you have you travelled? |
| the number of balloons popped in a year. | 12. If a family car weight about 1.5 tapped what would |
| 13. $120 - 80 =$ | 12. If a family car weighs about 1.5 tonnes, what would be the total weight of 6 cars? |
| 14. If you were in Brisbane and the date was 28.2, what season would it be? | 🗌 156 t 🗌 9 t 🗌 90 t 🗌 1.5 t |
| | 13. $\frac{1}{10} > \frac{1}{2}$ true false |
| 15. 1750 + 550 = | 14. Show as a $\frac{1}{2}$ turn. |
| 16. Draw a $\frac{1}{2}$ turn to the left. | F ' |
| c E | 15. Halve 3.8. |
| | 16. Are disposable batteries symmetrical? \Box yes \Box no |
| 17. 4 - 0.9 = 18. If the temperature was 42 °C, it would be: | 17. 2.19 × 100 = |
| extremely hot. warm. | 18. 5 – 0.8 = |
| cool. freezing. | 19. Halve 48. Double 48. |
| 19. 2.1 + 0.9 = | |
| 20. Halve 650. | 20. $41 \div 6 = r$ |
| | |

| WEDNESDAY | THURSDAY |
|--|---|
| 1. 700 + 8000 + 60 + 2 = | 1. How many triangles can you find? |
| | |
| 2. 5 × 11 = | 2. If $a = 7$, then $a + 9 = 1$. |
| 3. 2.8 t = kg | 3. $1/_5 > 1/_3$ b true b false |
| 4. Luke, a farmer, sold 1 t of grapes for \$1000. If the grapes were packed in 25 kg boxes, how many boxes did he sell? | 4. Draw a vertical line. |
| boxes | 5. 60 + 50 = |
| 5. How much did each box of grapes sell for? | 6. What was the time 7 hours before 2.10 pm? |
| 6. 2.4 + 0.6 = | |
| 7. $\frac{1}{10} + \frac{9}{10} =$ | 7 Half 700 |
| 8. What will the time be 4 hours after 10.30 pm? | 7. Half 700 = . Now halve it again: . |
| | 8. , 9.9, 9.8, 9.7 9. Which set has 2 prime numbers? |
| 0 0000 0007 0000 | 9. Which set has 2 prime numbers? |
| 9. 9996, 9997, 9998,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, , ,, , ,, , ,, | 10. $\frac{4}{10} + \frac{4}{10} = \frac{1}{10} = \frac{1}{10}$ |
| | 10. $\gamma_{10} + \gamma_{10} = \gamma_{10}$ |
| 11. 5)800 = | |
| | 12. $36 \div 6 = \div 3$ 13. How many right angles does a rhombus have? |
| 12. Are A and B congruent? | 13. How many right angles does a mombus have: |
| 13. 60 - 5 - 8 = | 14. What is the cost of 10 kg of |
| 14. How many internal angles does a decagon have? | onions at \$1.25 per 2 kg? |
| 15. 0.8 > 1.0 true false | 15. $4 \times 8 = 8 + 8 + 8 + 8 =$ |
| 16. What measurement would you use to measure milk | 16. 1.6 L = mL |
| for a cake recipe? | 17. Write thirty-seven thousand, one hundred and eleven |
| (mL, kg, cm, m) | as a numeral. |
| 17. Write 92 as a Roman numeral. | |
| 18. What is the cost of 100 m of pipe worth \$3.95 per | 18. 40 × 8 = 320, 39 × 8 = |
| metre? | 38 × 8 = , 37 × 8 = |
| 19. 24 ÷ 8 = ÷ 4 | 19. The number on the abacus is |
| 20. Packets of jelly beans are | |
| in 500-g boxes. What is the total number of packets in | If two beads are added to |
| boxes A and B? | each place value, the new number is |
| packets Jelly B | 20. Circle the matching shape. |
| Beans 500 g | |
| | |
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