New Wave Mental Maths

4th Class

REVISED EDITION

SAMPLE - NOT FOR SALE

THURSDAY

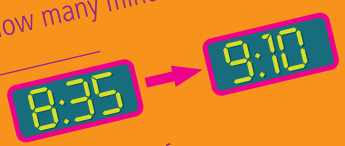
This angle is
- ☐ acute.
- ☐ right.
- ☐ obtuse.

What fraction of children liked chocolate and strawberry ice cream? _____

Colour an arrow to show where the balance will tip.

How many minutes difference?

_____

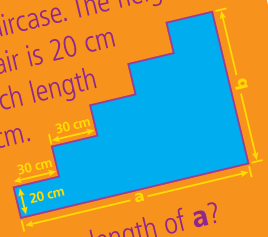


This is a net of a _____.

PROBLEM-SOLVING

MONDAY

An architect is designing a small staircase. The height of each stair is 20 cm and each length is 30 cm.



What is the length of **a**?

_____ cm

What is the height of the staircase **b**? _____ cm

TUESDAY

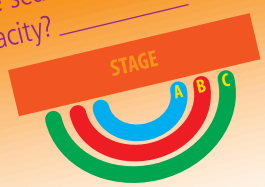
Tick the matching shape after a $\frac{1}{2}$ turn rotation.

WEDNESDAY

Draw lines to match the triangles to their names.

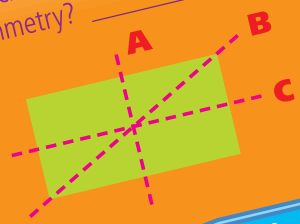
THURSDAY

An architect is designing an auditorium. Row A has 15 seats and each row after that has 15 more seats. What is the seating capacity? _____



FRIDAY REVIEW

Which is not a line of symmetry? _____

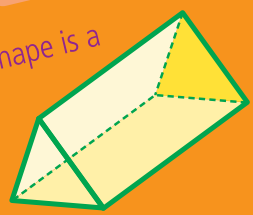


The capacity is 1,500 ml. What is the volume at B?

_____ ml

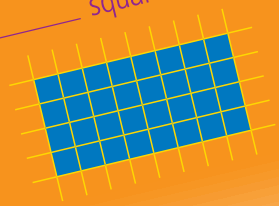
What was the time $\frac{1}{4}$ of an hour before? _____

This shape is a _____.

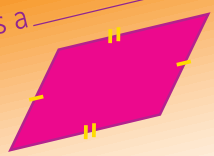


What is the area of this grid?

_____ squares



This is a _____



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Eddy Krajcar

FOREWORD

New Wave Mental Maths is a series of seven pupil workbooks, written to provide a comprehensive and structured daily mental maths programme for classes from Senior Infants to 6th Class. All strands and strand units of the mathematics curriculum are covered. The series has been updated and revised. Contemporary colour and appealing artwork have been added. Question types have been revised, reworded or rewritten. New to this edition is the inclusion of a separate problem-solving column in each week's unit of work, to enable teachers to focus on specific problem-solving skills and strategies.

New Wave Mental Maths is designed to:

- provide complete coverage of all mental maths-related strands and strand units of the mathematics curriculum;
- encourage and develop mental calculation concepts and skills;
- constantly revise the different strands and strand units;
- develop and reinforce problem-solving strategies;
- develop and maintain speed of recall; and
- introduce, practise and consolidate a range of mathematical vocabulary and language.

Assessment activities are provided for pupils to assess, monitor and record their own performance on a weekly basis. A separate ***Teachers Manual*** is available to accompany the ***New Wave Mental Maths*** series. This manual contains guidelines to help develop mental strategies; suggestions for classroom use; assessment material; list of concepts developed and answers for all the pupil workbooks.

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SAMPLE - NOT FOR SALE

WEDNESDAY

1. What is the time?

_____

2. 3 × 4 = _____
3. 405c = € _____
4. 9 ÷ 3 = _____
5. This shape is a/an

- ☐ octagon.
- ☐ pentagon.
- ☐ hexagon.

6. Write the numeral one thousand one hundred.

_____

7. 3:12

_____ minutes past _____

8. 600 + 30 + 7 = _____
9. 2, 4, 8, 16, _____
10. 10 × 24 = _____
11. Flip a coin. It has a _____ in _____ chance of landing on 'tails'.
12. 85 minutes = _____ hour(s) _____ minute(s)
13. 5 + _____ < 8
14. Which is lighter, 200 g or 2 kg? _____
15. 12 – 7 = _____
16. 1,000 + 10 + 1 = _____
17. What is the value of the 3 in 1,362?

☐ 30 ☐ 300 ☐ 3,000

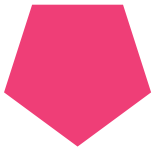
18. 14 ÷ 2 = _____
19. 5 + 5 + 5 = _____
20. 7 × 3 = 3 × _____

THURSDAY

1. What is the time?

_____

2. 11 – 5 = _____
3. This shape is a _____.



4. 690c = € _____
5. How many sides has an octagon? _____
6. €10.00 – €3.50 = € _____
7. 5, 10, 20, 40, _____
8. 15 ÷ 3 = _____
9. 9 × 5 = 5 × _____
10. This shape is a

- ☐ square.
- ☐ hexagon.
- ☐ parallelogram.

11. 7 × 5 = _____
12. 5 + _____ < 7
13. 7 + 7 + 7 = _____
14. 3:21

_____ minutes past _____

15. Write the numeral one thousand. _____
16. 4 + 7 = _____
17. 700 + 50 + 4 = _____
18. 90 minutes = _____ hour(s) _____ minute(s)
19. What is the value of the 8 in 218?

☐ 8 ☐ 80 ☐ 800

20. Which number is nearer to 1,000?

☐ 1,020 ☐ 989

SAMPLE - NOT FOR SALE

WEDNESDAY

1. What is the time? _____
2. Write the numeral one thousand and eleven.

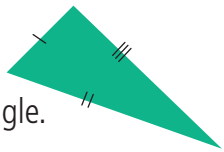
   _____
3. 2.7, 2.8, 2.9, _____
4. A week before the 7th of August is

   _____.
5. A dice is in the shape of a

   _____.

6. 42 – 7 = _____
7. 80 minutes = _____ hour(s) _____ minute(s)
8. This triangle is a

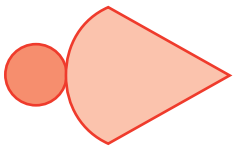
   _____ triangle.



9. 7:17

   _____ minutes past _____
10. This is a net of a

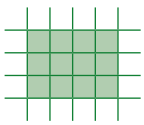
    _____.



11. 1 – 0.4 = _____
12. Round 5,820 to the nearest thousand.

    _____
13. An octagon has _____ sides.
14. 80 + 7 + 8 = _____
15. 954c = € _____
16. What is the area of this 4 by 3 grid?

    _____ squares



17. Rather than counting all the squares, what is an easier way of finding the area?

    _____
18. 8 × 7 = 7 × _____
19. 0.6 + 0.4 = _____
20. Share €20.00 equally among 8 children.

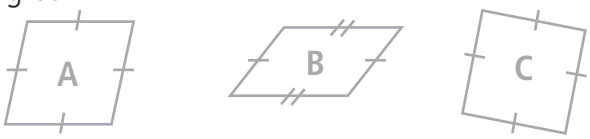
    € _____ each

THURSDAY

1. What is the time? _____
2. Measure this line.

   _____ cm

3. Colour the parallelogram red and the rhombus green.



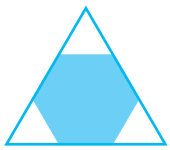
4. €10.00 – €4.70 = € _____
5. 73 – 8 = _____
6. 75 minutes = _____ hour(s) _____ minute(s)
7. _____, 9.9, 9.7, 9.5, 9.3
8. 3:25

   _____ minutes past _____
9. 2 × 9 = 9 × _____
10. This is a net of a

    _____.

11. 1 – 0.8 = _____
12. What is the coloured shape?

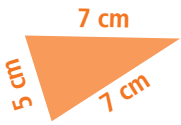
    _____



13. 9.3 > 8.8

    ☐ True ☐ False
14. What is the perimeter?

    _____ cm



15. Which type of triangle is in Question 14?

    ☐ isosceles ☐ right-angled
    ☐ scalene ☐ equilateral
16. What is the area of a grid 7 cm by 4 cm?

    _____ cm^2
17. 8 + 8 + 8 + 8 = _____
18. 0.5 + 0.5 = _____
19. 103 ÷ 10 = _____ r _____
20. 3 × 9 = 24 ☐ True ☐ False

SAMPLE - NOT FOR SALE

PROBLEM-SOLVING

Monday

1. Mia and Anna have 9 bracelets altogether. Mia has twice as many as Anna. How many bracelets does Anna have?

_____

2. Mr Jones looked at his phone. It showed 7.40 a.m. on Wed. 1st Dec. He needs $\frac{3}{4}$ of an hour to shop. It takes him 10 minutes to walk from his car and back. Will he get a parking fine?

_____

Tuesday

1. A family of four each bought the same ticket. What was the total cost?

€ _____

2. How long did their journey take?

_____

Wednesday

Mr Nolan went shopping.

1. The kilogram price of the apples was

€ _____.

2. The kilogram price of the pears was

€ _____.

FRANK'S FRUIT AND VEG
CASHIER 155

ITEM	Qty	
APPLES	3 kg	€12.00
PEARS	2 kg	€ 4.50

TOTAL: €16.50

PAYMENT: CASH
DATE: SAT. 19 AUGUST
10.20 A.M.

RECEIPT NEEDED FOR RETURNS
THANK YOU

Thursday

Use the receipt from Wednesday.

1. In 48 hours, the day and date will be

_____.

2. In 72 hours, the day and date will be

_____.

FRIDAY REVIEW

1. 9.2, 9.4, 9.6, _____
2. Round 3,491 to the nearest thousand.

_____

3. 0.7 + 0.3 = _____
4. _____, 9.5, 9.0, 8.5
5. 1 – 0.4 = _____
6. Measure this line.

_____ cm

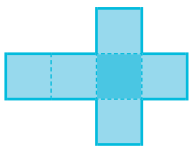
7. Write the numeral one thousand and sixty-three.

_____

8. €10.00 – €3.40 =

€ _____

9. 12 × 7 = _____
10. This is a net of a



☐ cuboid.
☐ square-based pyramid.
☐ cube.

11. How many sides has an octagon?

_____

12. If apples cost €6.00 per kg, what would $3\frac{1}{2}$ kg cost?

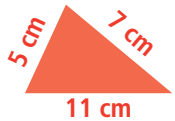
€ _____

13. 3.7 km = _____ m
14. 80 minutes =

_____ hour(s)

_____ minute(s)

15. 5 × 6 = 6 × _____
16. 52 – 7 = _____



17. What is the name of this triangle?

_____

18. The perimeter of the above triangle is

_____ cm.

19. 100 × 32 = _____
20. 93 ÷ 9 = _____ r _____
21. A week before the 7th of December is

_____.

22. What is the area of a grid 3 cm by 9 cm?

_____ cm^2

23. Share €50.00 equally among four 4th Class pupils.

€ _____ each

24. 750c = € _____
25.

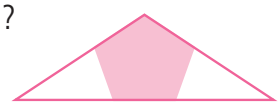
_____ minutes past

_____

SAMPLE - NOT FOR SALE

MONDAY

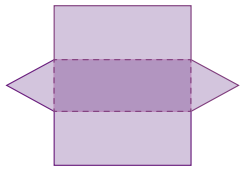
1. What was the time ten minutes before? _____ 11:00
2. What is the coloured shape? _____



3. Measure this line. _____ cm
4. €10.00 – €4.40 = € _____
5. _____, 0.9, 0.5, 0.1
6. Write the numeral one thousand, four hundred and seventy-five. _____
7. 0.5 + 0.7 = _____
8. 6,000 + 300 + 70 + 2 = _____
9. 5 + _____ > 8
10. 23 – 9 = _____
11. Roll a dice. There is a _____ in _____ chance of it landing on 3.
12. 1 – 0.2 = _____
13. What is the area of a grid 7 cm by 5 cm? _____ cm^2
14. 3.1 < 2.9 ☐ True ☐ False
15. Which number is nearest to 9,000? ☐ 8,650 ☐ 9,395 ☐ 9,090
16. How many tens in five hundred and sixty? _____
17. A week before the 6th of September is _____.
18. 8 × 7 = 56 ☐ True ☐ False
19. 4 m 70 cm = _____ cm = ____.____ m
20. 1 ℓ = _____ mℓ

TUESDAY

1. What was the time ten minutes prior? _____ 8:00
2. What is the area of a grid 2 cm by 4 cm? _____ cm^2
3. Write the numeral one thousand, one hundred and eleven. _____
4. €10.00 – €6.30 = € _____
5. Draw a hexagon.
6. 8.7, 9.2, 9.7, _____
7. Write 2 symmetrical capital letters. _____ _____
8. 43 – 8 = _____
9. This is a net of a _____.



10. 5)70 = _____, 10)140 = _____
11. 8,000 + 500 + 40 + 7 = _____
12. 0.7 + 0.8 = _____
13. A week after the 24th of April is _____.
14. Share €50.00 equally among 4 teachers. € _____ each
15. What is the place value of the 8 in 12.8? _____
16. 9 × 7 = _____
17. 4 + _____ > 6
18. Roll a dice. There is a _____ in _____ chance of it landing on an odd number.
19. 2 – 0.3 = _____
20. 8.2 < 9 ☐ True ☐ False

SAMPLE - NOT FOR SALE

Week 6

WEDNESDAY

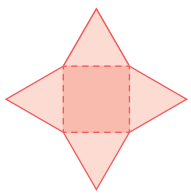
1. What will be the time ten minutes after? _____ 5:50
2. €10.00 – €9.70 = € _____
3. 6 + _____ > 10
4. 10, 30, 90, _____, 810
5. Complete the missing half. (Use a ruler.)

6. What is the area of a grid 7 cm by 10 cm?

   _____ cm^2
7. Circle the numbers that are symmetrical.

   1 2 3 4 5 6 7 8 9 10
8. 62 – 9 = _____
9. Roll a dice. There is a _____ in _____ chance of it landing on an even number.
10. This is a net of a _____

    _____.



11. 0.9 + 0.7 = _____
12. _____

    Measure this line in cm. _____ cm
13. 11 × 12 = _____
14. 7 km 500 m = _____ m = ____.____ km
15. 7,000 + 300 + 80 + 4 = _____
16. Which number is nearer to 1,500?

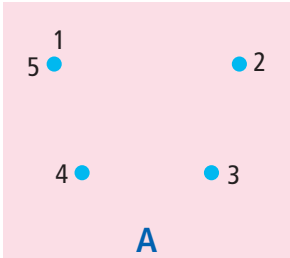
    ☐ 1,545 ☐ 1,470
17. What is the number before 1,890?

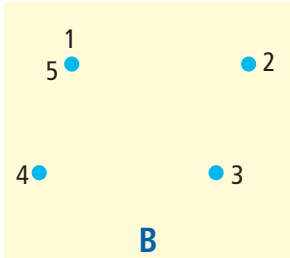
    _____
18. $5\overline{)80}$ = _____, $10\overline{)160}$ = _____
19. 3 – 0.6 = _____
20. 70 + 60 = _____

THURSDAY

1. What will be the time ten minutes after? _____ 1:50
2. What is the place value of the 4 in 4,279?

   _____
3. Which dots will draw a parallelogram? _____



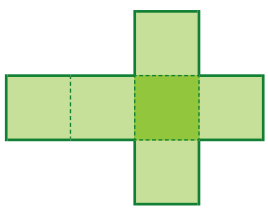


4. 0.8 + 0.9 = _____
5. 60, 90, 70, 100, 80, _____
6. 7 + _____ > 9
7. 198c = € _____
8. €5.00 – €2.70 = € _____
9. Is an isosceles triangle symmetrical?

   _____

10. 80 + 50 = _____
11. How many fives go into one hundred? _____
12. 12 × 9 = _____
13. 7 m 40 cm = _____ cm = ____.____ m
14. Roll a dice. There is a _____ in _____ chance of it landing on 7.
15. 72 – 8 = _____
16. 9,000 + 700 + 30 + 8 = _____
17. 5 – 0.8 = _____
18. 90 + 7 + 9 = _____
19. What is the number after 1,699? _____
20. This is a net of a

    _____.



SAMPLE - NOT FOR SALE

PROBLEM-SOLVING

Monday

1. The difference between two numbers is 4. The sum of the numbers is 14. The two numbers are

_____ and _____.

2. The difference between two numbers is 5. The sum of the numbers is 11. The two numbers are

_____ and _____.

Tuesday

Cinema	HHHHH
Camping	HHHn
Judo	Hn
Dancing	HHn

H = 2
n = 1

1. The number of 4th Class children who like going to the cinema is the same as the sum of which two activities?

_____ and _____

2. This 4th Class has 30 pupils. How many were not asked? _____

Wednesday

1. A tray can hold 12 bread rolls. The baker puts 4 trays in the oven. There are

_____ bread rolls in the oven.

2. The baker adds jam to $\frac{1}{4}$ of 36 scones. How many scones have jam?

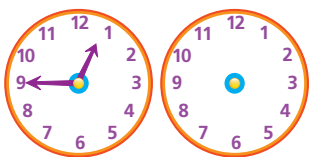
_____

Thursday

1. What is the mystery shape? It is a 3-D shape. It has 5 faces. It has 8 edges. It has 5 vertices. It is a

_____.

2. Draw hands to show $3\frac{1}{2}$ hours later.



FRIDAY REVIEW

1. What was the time 10 minutes before?

_____

2. 7,000 + 400 + 30 + 8

= _____

3. €10.00 – €7.80 =

€ _____

4. 5 + _____ > 7

5. Measure this line.

_____ cm

6. 5)90 = _____

7. 4 – 0.4 = _____

8. Roll a dice. There is a

_____ in _____

chance of it landing on 5.

9. 8 × 7 = _____

10. 0.8 + 0.4 = _____

11. 42 – 9 = _____

12. Which number is nearer to 3,000?

☐ 2,960 ☐ 3,030

13. Is an equilateral triangle symmetrical?

_____

14. What is the area of a grid 3 cm by 6 cm?

_____ cm^2

15. 80 + 6 + 9 = _____

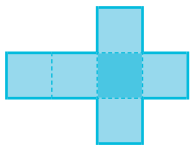
16. 4.8 km = _____ m

17. The change given to eight customers was €10, and each. What was the total?

€ _____

18. 6.9 m = _____ cm

19. This is a net of a



☐ cube.
☐ cuboid.

20. 765c = € _____

21. How many kilometres will you have cycled if you travel 3,800 m?

_____ km

22. Write two symmetrical numbers under 10.

_____ _____

23. What is the date a week before the 6th of December?

_____

24. Draw a parallelogram.

25. Write the numeral two thousand, six hundred and eighty-nine.

_____

Week 6

SAMPLE - NOT FOR SALE