



W.C. 4th May 2020

<https://www.bbc.co.uk/bitesize/tags/zhgppg8/year-5-and-p6-lessons/1>

Maths

Use the worksheets to work from and not on. All you need is a piece of paper, pencil and maybe a ruler.

After watching the videos and having a go at the practise activities, have a go at these activities. Depending on your confidence choose Mild, Medium or Spicy.

Extensions – You may wish to deepen your learning by looking at the Collins Worksheets provided by the BBC too.



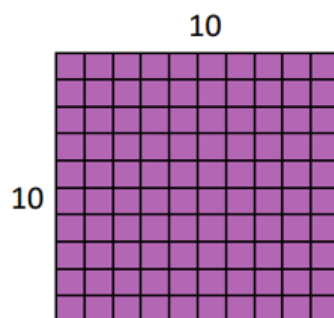
Monday

<https://www.bbc.co.uk/bitesize/articles/zrwfvk7>

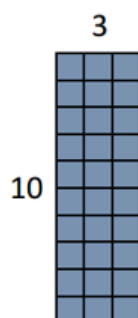
Area model/Grid method

Area Model

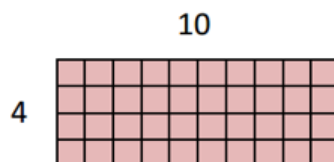
What is 13×14 ?



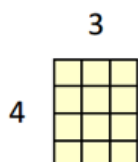
$$10 \times 10 = 100$$



$$3 \times 10 = 30$$



$$10 \times 4 = 40$$



$$3 \times 4 = 12$$

x	10	3
10	10 x 10	3 x 10
4	10 x 4	3 x 4

x	10	3
10	100	30
4	40	12

100

30

40

+12

182

Grid Method

$$38 \times 62 =$$

X	60	2
30		
8		

X	60	2
30	1800	60
8	480	16

$$38 \times 62 = 1800 + 60 + 480 + 16$$

$$38 \times 62 = 2356$$

Mild

Area Model

×	10	10	10	10	1	1	1	1
10	100	100	100	100	10	10	10	10
10	100	100	100	100	10	10	10	10
10	100	100	100	100	10	10	10	10
1	10	10	10	10	1	1	1	1
1	10	10	10	10	1	1	1	1

Grid Method

×	40	4
30	1,200	120
2	80	8

is the same as

Compare using place value counters and a grid to calculate:

$$45 \times 42$$

$$52 \times 24$$

$$34 \times 43$$

So draw out, using colours if you have them, the area model grid and then the grid method to work out the answers.

Eva says,

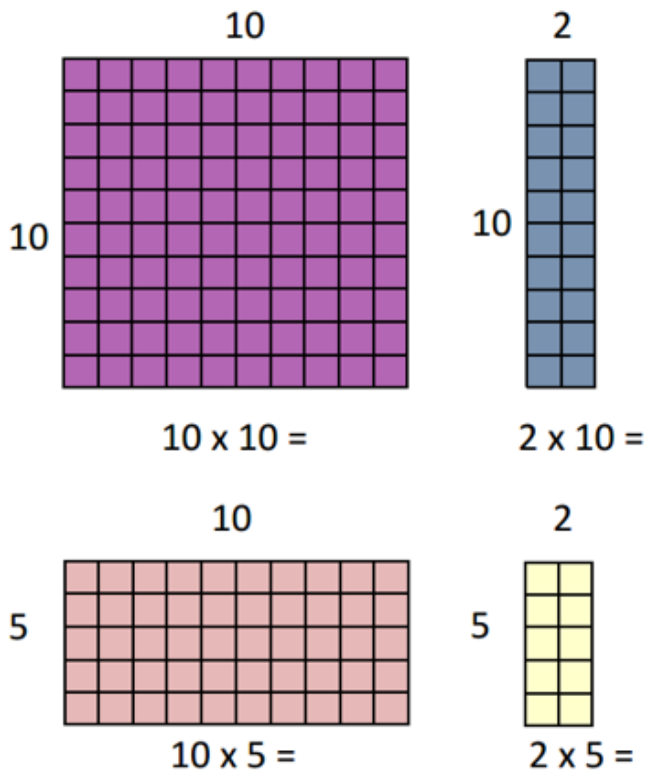


To multiply 23 by 57 I just need to calculate 20×50 and 3×7 and then add the totals.

What mistake has Eva made?
Explain your answer.

Medium

What is 12×15 ?

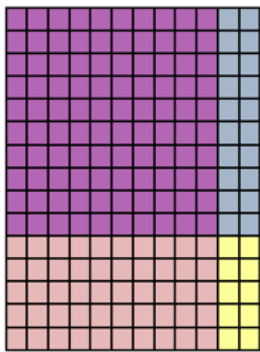


x	10	2
10	10×10	2×10
5	10×5	2×5

x	10	2
10		
5		

Write the missing calculations that this child has started to work out 12×15 .

What multiplication does the area model show?



x		

Annotate the area model like the previous question and then complete the calculation using the grid.

Amir hasn't finished his calculation.
Complete the missing information and
record the calculation with an answer.

×	40	2
40		
6		

Draw this out and add in the missing counters. Use colours if possible.

Can you write these out as Grid Multiplications?

1) $14 \times 32 =$

2) $12 \times 23 =$

3) $25 \times 16 =$

4) $33 \times 15 =$

5) $22 \times 51 =$

x	10	4
30		
2		

Can you work out my missing numbers to help me remember how I got my answers?

x	?	?
?	3 000	4 50
?	3 00	4 5

Want more? - Go to Purple Mash and do the Multiplication activities.

Tuesday

Multiply by a 2 digit number

You need to calculate 96×2 and 96×30 .

We need to have a place holder when multiplying by 30. Why?

$$\begin{array}{r}
 96 \\
 \underline{32 \times} \\
 192 \quad \leftarrow \text{this is } 96 \times 2 \\
 2880 \quad \leftarrow \text{this is } 96 \times 30 \\
 \hline
 3072 \quad \leftarrow \text{this is } 96 \times 32
 \end{array}$$

EVERYONE!

Complete the following to calculate 26×19 :

$$\begin{array}{r}
 26 \\
 \times 19 \\
 \hline
 234 \quad (26 \times 9) \\
 260 \quad (26 \times 10) \\
 \hline
 \hline
 \end{array}$$

Mild

2 Fill in the missing numbers.

a)

			4	3	
	$\times$		1	3	
		1	2	9	(43×3)
		4	3	0	(43×10)

c)

	$\times$				
		1	0	5	(21×5)
		4	2	0	(21×20)

b)

			2	1	
	$\times$		1	6	
		1	2	6	$(\square \times \square)$
		2	1	0	$(\square \times \square)$

4

a) $52 \times 34 =$

c) $46 \times 64 =$

b) $22 \times 56 =$

d) $47 \times 63 =$

A blank 10x10 grid of squares, intended for drawing a picture.

5

How many labels will it print in three-quarters of an hour?

Medium

2

a)

			2	3	1
	x			1	3
			6	9	3
			2	3	1
					0

(231 × 3)

(231 × 10)

(231 × 3)

(231 × 10)

b)

			5	1	2	
	×			2	4	
		2 ₂	0	4	8	
		1 ₁	0	2	4	0

(×)

(×)

$$(\quad \times \quad)$$

$$(\quad \times \quad)$$

4

a) $142 \times 31 =$

c) $214 \times 53 =$



b) $337 \times 46 =$

d) $24 \times 183 =$

5 Some children are asked to work out 308×19

a) Which is the best estimate to use to check their answers?

Circle your choice and work out the answer to your estimate.

300×10

300×20

310×20

300×19

estimate answer =

b) Explain the reasons for your choice.

c) Here are answers given by three children.

Nijah 28,028

Filip 5,852

Whitney 2,080

From your estimate, who do you think is correct? _____

d) Work out the correct answer.

e) What mistakes might the others have made?

Spicy

2 Tommy is calculating $1,234 \times 26$

a) Complete his working out.

			1	2	3	4	
	x				2	6	
			7 ₁	4 ₂	0 ₂	4	
			2	4	6	8	0

(x)
(x)

b) Fill in the grid to check Tommy's working is accurate.
You may use place value counters to help.

x	1,000	200	30	4
20				
6				

3 Rosie is calculating $2,541 \times 42$

Here is Rosie's working.

2	5	4	1	
x		4	2	
4	0	8	2	(2,541 x 2)
8	0	6	4	(2,541 x 40)
1	2	1	4	6

a) Rosie has made two mistakes. What are they?

b) What is the correct answer?

8 Amir scores 4,680 points in a computer game for 12 games in a row.

Whitney scores 2,512 points every game for 24 games.

Who scores more points? _____

How many more?

Want more? - Have a go at the Purple Mash 2Dos on multiplication by 2 and 3 digit numbers. You will need some paper to help you work them out.

Wednesday

Short division with remainders

Watch this clip for extra support

<https://www.youtube.com/watch?v=FApcidAhnry>

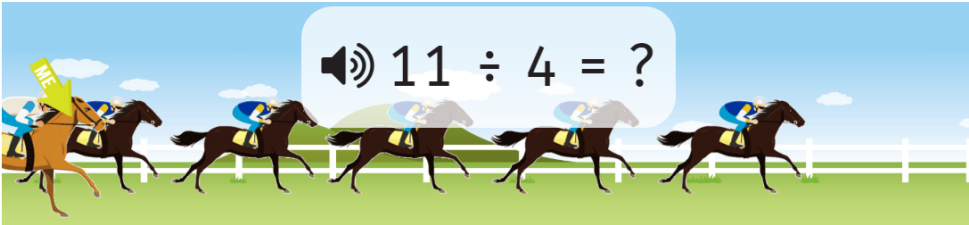
Mild, **Medium** and **Spicy** - Log on to Timetable Rockstars and compete in the Battles we have set up!



Then have a go at division with remainders 2do on Purple Mash and also search Study Ladder for division with remainder activities!

SL Division (remainders)

 $11 \div 4 = ?$



1	2	3	.	←
4	5	6	-	r
7	8	9	0	

1 2 3 4 5 6 7 8 9 10

NEXT

Thursday

Measure and calculate perimeter

Calculating perimeter

The **perimeter** is the distance all the way around the **outside** of a 2D shape.**

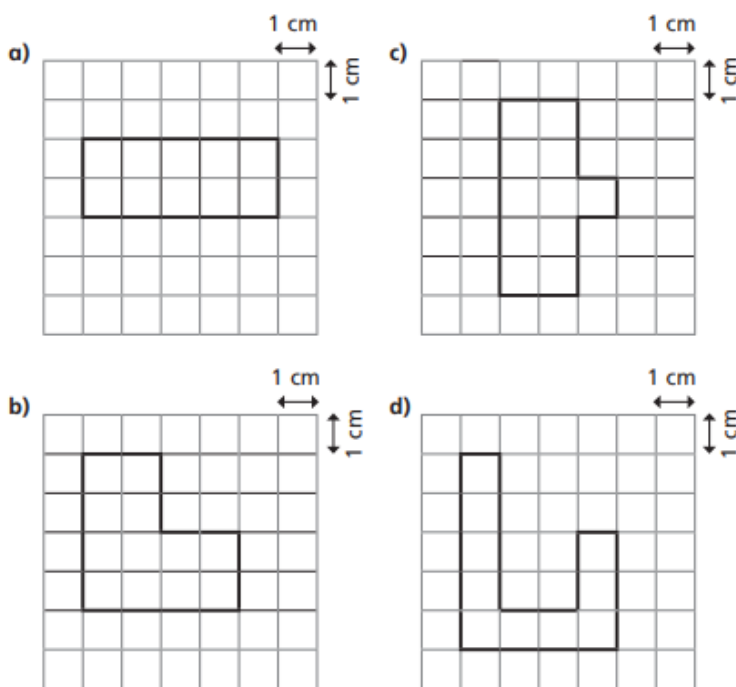
To work out the perimeter, add up the lengths of all the sides.



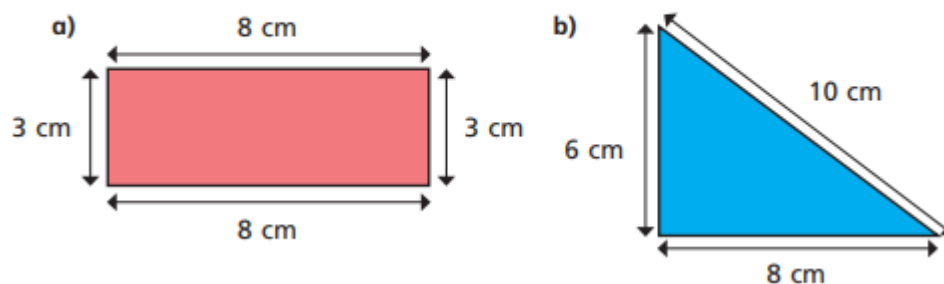
The perimeter of this shape is $10 + 10 + 6 + 6 = 32$

Mild

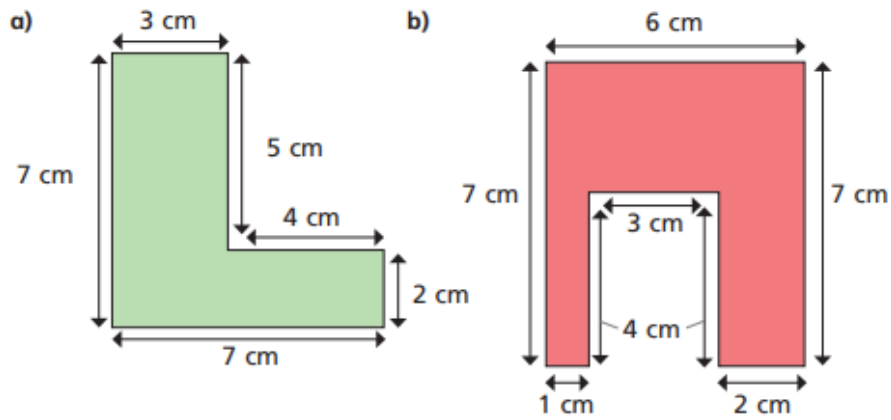
- 1 Calculate the perimeter of each shape.



- 2 Calculate the perimeter of these shapes.

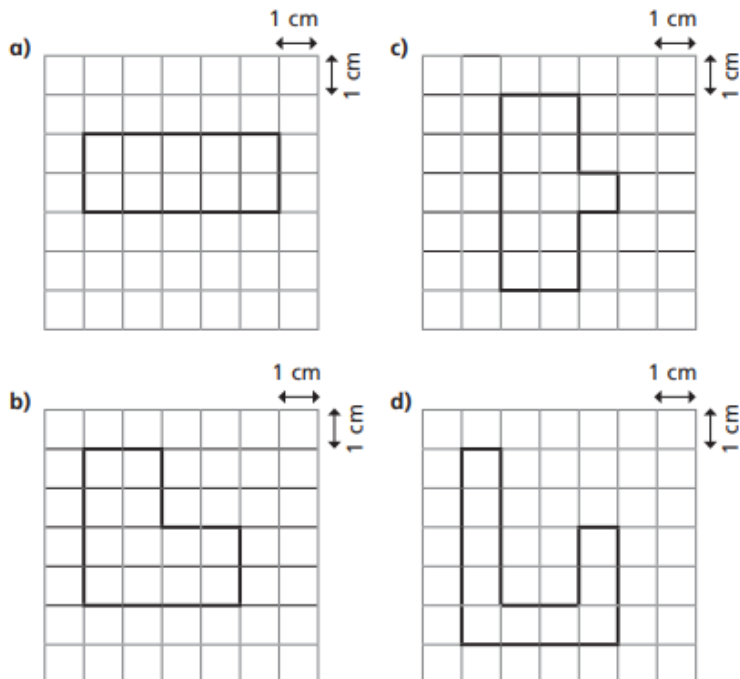


3 Calculate the perimeter of these shapes.



Medium

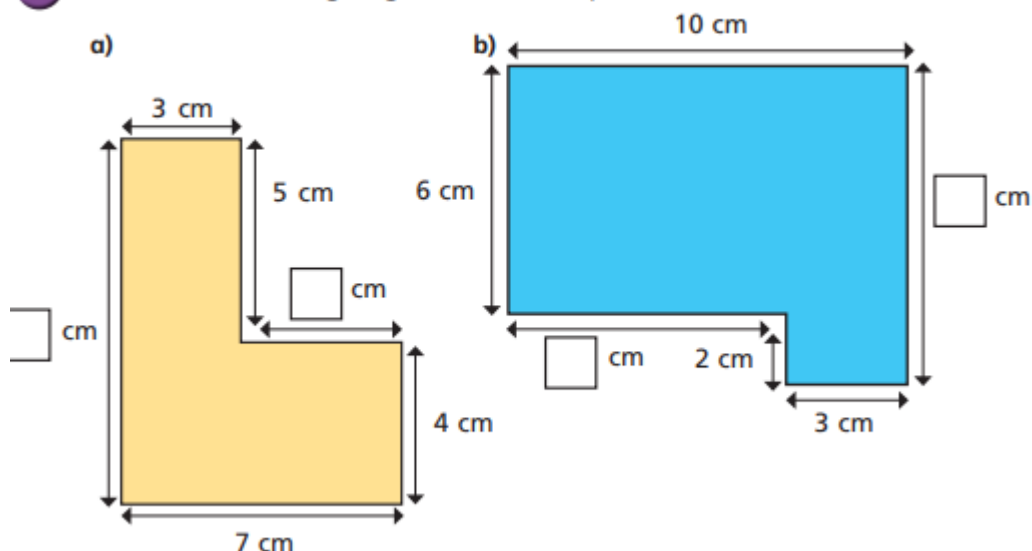
1 Calculate the perimeter of each shape.



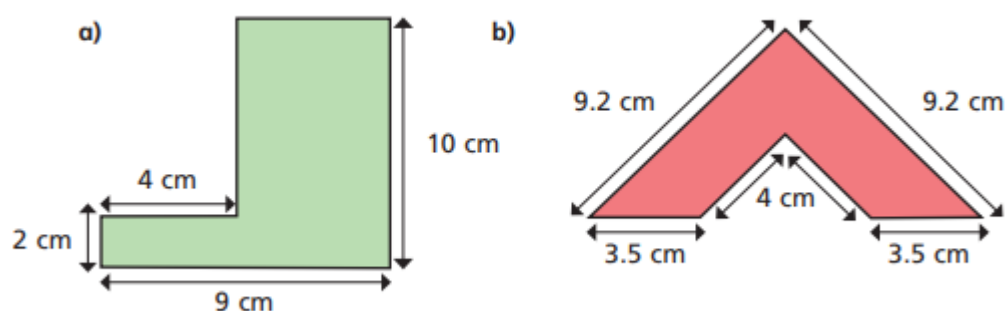
<https://www.khanacademy.org/math/basic-geo/basic-geo-area-and-perimeter/basic-geo-perimeter/v/finding-perimeter-when-a-side-length-is-missing-math-3rd-grade-khan-academy>

Use this link to remind you how to find a missing side

4 Work out the missing lengths on these shapes.

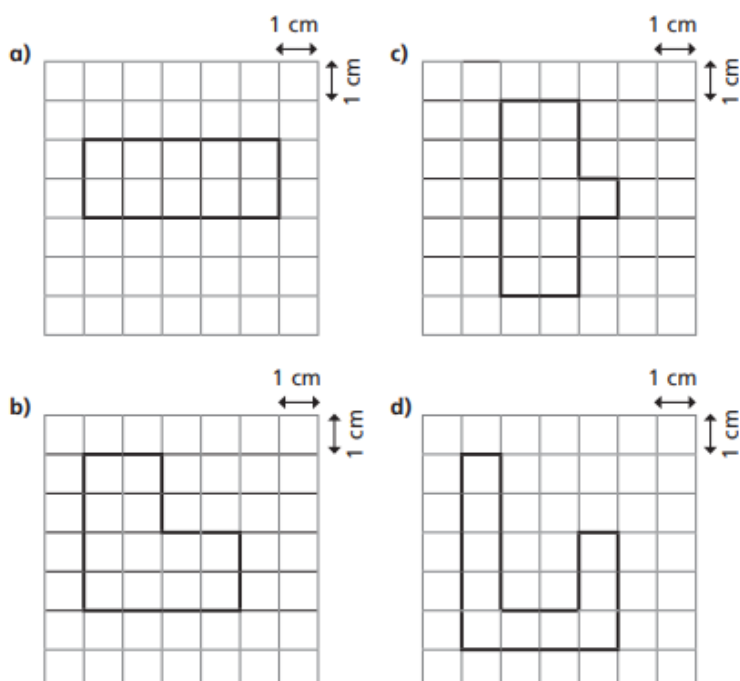


5 Calculate the perimeter of these shapes.



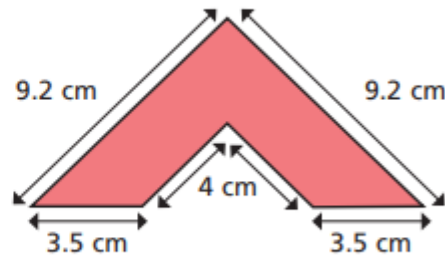
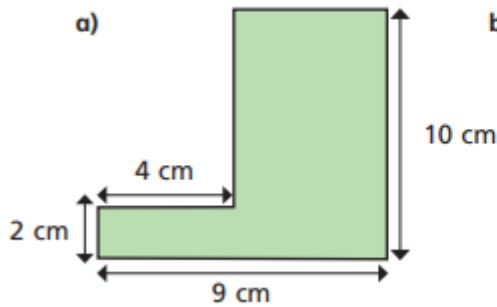
Spicy

1 Calculate the perimeter of each shape.

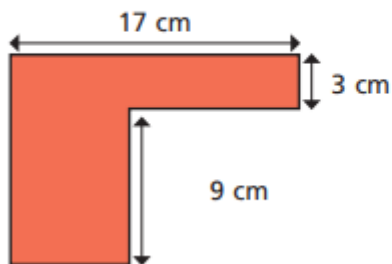


Use this link to remind you how to find a missing side

- 5 Calculate the perimeter of these shapes.



- 6 Mo thinks that there is not enough information to calculate the perimeter of the shape.



Is he correct? How do you know?

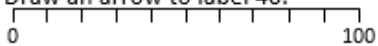
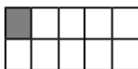
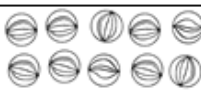
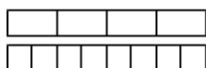


Friday

Today you may wish to challenge yourself with the online challenges or the Key Skills tasks! But make sure to have plenty of fun with maths today!

Key Skills and Rockstars

Remember these sheets are only to work from not on so don't worry if you cannot complete a couple of the questions, just read through them instead.

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions	
1. What is the missing number? 0 8 24 32	3:1	11. $36 \div 3 =$	3:10
2. What is the 2 worth in this number? 257	3:2	12. $8 \times 3 =$	3:10
3. Put these in order, smallest first. 293 329 932 392	3:3	13. Use $5 \times 6 = 30$ to solve: $300 \div 6 =$	3:11
4. Draw an arrow to label 40. 	3:4	14. Eggs come in boxes of 6. I need 20 eggs. How many boxes should I buy?	3:12
5. Circle all the multiples of 8. 6 8 14 16 20	3:5	15. What fraction is shaded? 	3:13
6. $462 + 100 =$	3:6	16. Circle $\frac{3}{5}$ of the marbles. 	3:14
7. $256 + 128 =$	3:7	17. What fraction is labelled? 	3:15
8. Write the sum to check $82 - 37 = 45$. Check: $45 + \square = \square$	3:8	18. $\frac{1}{4} = \frac{?}{8}$ 	3:16
9. To a no. I add 27 then subtract 19. I now have 13. What did I start with?	3:9	19. Subtract the fractions. $\frac{7}{8} - \frac{3}{8}$	3:17
10. What is the missing number? $149 + \square = 211$	3:9	20. Write the largest fraction. $\frac{2}{5} \quad \frac{1}{5} \quad \frac{4}{5} \quad \frac{3}{5}$	3:18

C: Measure, Geometry and Statistics

23. About how long does it take for a full kettle to boil?
a. 50 seconds
b. 5 minutes
c. 50 minutes



3:23

22. Which of these is a correct description of a cuboid?
a. I have 6 faces and 6 vertices.
b. I have 6 edges and 8 vertices.
c. I have 6 faces and 12 edges.

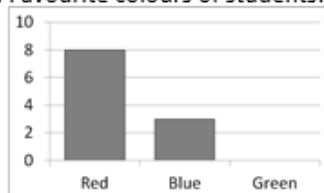
3:25

23. Label two acute angles using the letter 'A'.



3:26

24. Favourite colours of students:



- 6 people said green. Show this.

25. How many more people said 'Red' than said 'Blue'?

3:29

3:30

Medium

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions	
1. What is the missing number? 1,000 2,000 4,000 5,000	4:1	11. $9 \times 9 =$	4:9
2. What is the missing number? 200 225 250 275	4:1	12. Complete the sum that is equal to $4 \times 5 \times 18$: $20 \times$	4:10
3. Round this number to the nearest 1,000: 3,192	4:2	13. $932 \times 4 =$	4:11
4. What is 1,000 more than 6,394?	4:2	14. To work out 4×55 you could do: $50 \times$ $+$ $\times 5$	4:12
5. If the temperature starts at 5°C , then drops by 9°C , what is it now?	4:3	15. $\frac{35}{40} = \frac{7}{?}$	4:13
6. What is the value of the 8 in this number? 6,283	4:4	16. What is the missing number? 9.96 9.97 9.98 9.99	4:14
7. Write the number 74 in Roman numerals.	4:5	17. $\frac{2}{5} + \frac{4}{5}$	4:15
8. $4,115 - 1,472 =$	4:6	18. Write 0.8 as a fraction.	4:16
9. Estimate the answer to: $15,507 + 4,489$	4:7	19. $293 \div 10 =$	4:17
10. From 300 tickets, pupils buy 89 & parents buy 184. How many are left?	4:8	20. Using £20 Rob buys a DVD for £6 and a CD for £6.95. How much left?	4:18
Total (A)		Total (B)	

C: Measure, Geometry and Statistics

21. How many millilitres are there in 2.15 litres?

4:19

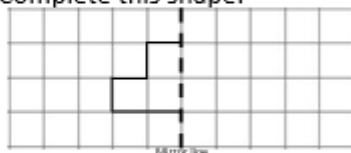
22. Tick (✓) the shape that has **exactly** 2 lines of symmetry.

4:25



23. Complete this shape:

4:26



24. Number of tyres sold by a garage one weekend:

4:29

Key: $\oplus$ = 4 tyres	
Saturday	$\oplus \oplus \oplus \oplus \in$
Sunday	

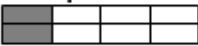
13 were sold on Sunday. Show this.

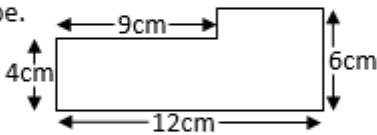
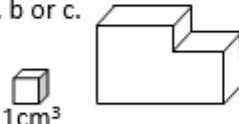
25. How many tyres were sold in total over the weekend?

4:30

Total (C)

Spicy

A: Place Value, Add and Subtract		B: Multiply, Divide and Fractions	
1. What is the value of the 4 in this number? 1,348,567	5:1	11. Which is a common factor of 12 and 20? 3 4 5 6 10	5:8
2. Write eight hundred thousand, three hundred and seven in digits.	5:1	12. Give two prime numbers between 1 and 10.	5:9
3. Round 247,599 to the nearest thousand .	5:2	13. 628×12	5:10
4. What is the missing number? 837 937 1,137	5:2	14. $1,278 \div 100$	5:11
5. What temperature is 15 degrees less than 6 degrees Celsius?	5:3	15. What is <u>7²</u> ?	5:12
6. What number is represented by these Roman Numerals? DXXX	5:4	16. $\frac{3}{4} + \frac{1}{8} =$	5:13
7. $12,498 - 3,149 =$	5:5	17. Find an equivalent fraction of $\frac{1}{4}$. 	5:14
8. $24,829 + 83,592 =$	5:5	18. Write $\frac{17}{6}$ as a mixed number .	5:15
9. Complete this sum without written working. $15,200 - 4,150 =$	5:6	19. $\frac{2}{7} \times 21 =$	5:16
10. I buy 2 CDs costing £8.45 each. How much change do I get from £20?	5:7	20. Round 2.37 to 1 decimal place.	5:17
Total (A)		Total (B)	

C: Measure and Problem Solving	
21. Megan and Joe are sharing a pizza. Megan eats 25% of the pizza. Joe eats $\frac{1}{2}$ of the pizza.  What fraction of the pizza is left?	5:19
22. How many centimetres are there in 3.7 metres?	5:20
23. Calculate the perimeter of this shape. 	5:21
24. Estimate the volume of this shape. Write a, b or c. a. 6 cm³. b. 26 cm³. c. 46 cm³. 	5:22
25. Sarah gets on a train at 2.30pm. The train journey lasts 110 minutes. What time does Sarah arrive at her destination?	5:23
Total (C)	