

*Measures:*

*Length, perimeter  
and area*

2 1.0 3. 2 2

*LO: To develop fluency with times table facts.*

*I know that times table equations are commutative.*

*I can use concrete resources and a counting stick to help me explain the key concepts of multiplication*

*I understand how to use known times table facts to help me develop my knowledge of those I don't know.*

*My speed on Times Table rockstars is*

**6 x table**

## Flashback 4

Year 3

$389 + 227 =$

$738 - 439 =$

$57 \times 3 =$

$78 \times 4 =$

Year 4

$3583 + 1343 =$

$5649 - 1274 =$

$157 \times 4 =$

$1 - \frac{3}{8} =$

**2 2.0 3. 2 2**

*LO: To understand how to subtract lengths.*

*I know that I need to find the most efficient way to subtract.*

*I can use take away and finding the difference to subtract.*

*I understand that I need to convert the measurement to the same units to subtract them efficiently.*

**year 3**

**year 4**

*LO: To compare the area of shapes.*

*I know how much larger or smaller the area of a shape is compared to another shape.*

*I can use greater than and less than to compare the area of shapes.*

*I understand how to use my knowledge of comparing the area of shapes to order them from largest to smallest and smallest to largest.*



# Flashback 4

## Flashback 4

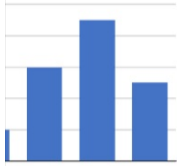
Year 3 | Week 7 | Day 5



Complete the sentence.

100 centimetres = 1 metre

How many more children like yellow than red?



Blue Yellow Green  
Favourite colour

£3 more than 452 p?

What is the value of the 5 digit in 325?



## Flashback 4

Year

- 1) How many metres are in 3 kilometres?
- 2) Write a subtraction to estimate the answer  
 $4,780 - 2,970$
- 3) Find the total of 6,029 and 1,818
- 4) What is  $\frac{1}{5}$  of 30?

## year 3

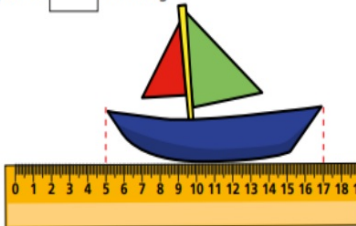
1 Complete the sentences to describe the lengths of the objects.

a)



The toy car is  mm long.

b)



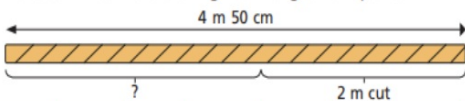
The toy boat is  cm long.

c) The toy boat is  cm longer than the toy car.

The toy car is  mm shorter than the toy boat.

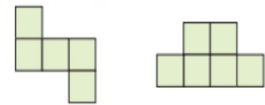
2 Jack's rope is 4 m 50 cm long.

He uses 2 m to make a swing. How long is his rope now?

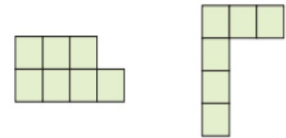


## year 4

1 a) Which shape has the larger area?

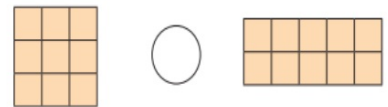


b) Which shape has the smaller area?

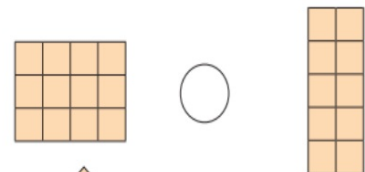


2 Write  $<$ ,  $>$  or  $=$  to compare the area of the shapes.

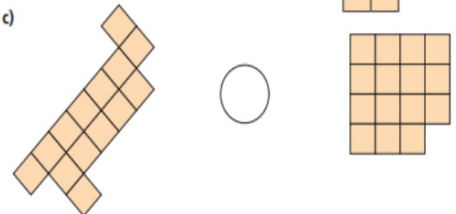
a)



b)



c)



## year 3

- 3 Tommy, Rosie and Annie each measure their height.



Annie



Rosie  
135 cm



Tommy  
1 m 15 cm

- a) What is the difference in height between Tommy and Rosie?  
b) Annie is 30 mm shorter than Rosie. What is Annie's height?

- 4 Nijah buys 5 m of ribbon.

She uses 78 cm of the ribbon to decorate a bag.

How much ribbon does she have left?

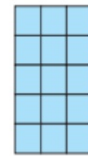
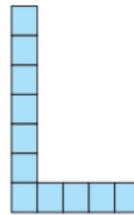


- 5 Complete the number sentences.

- a)  $2 \text{ m} - 50 \text{ cm} = \square \text{ cm}$   
b)  $85 \text{ mm} - 2 \text{ cm} = \square \text{ mm}$   
c)  $9 \text{ cm } 5 \text{ mm} - 20 \text{ mm} = \square \text{ cm and } \square \text{ mm}$   
d)  $100 \text{ mm} - \square \text{ cm} = 6 \text{ cm}$

## year 4

- 3 Mo draws these two shapes.



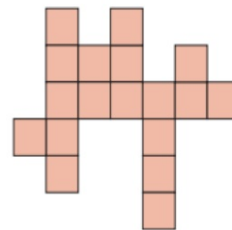
Shape B must have a smaller area than shape A because it is shorter and thinner than shape A.



Do you agree with Mo?

Explain your reasoning.

- 4 Here is a shape.



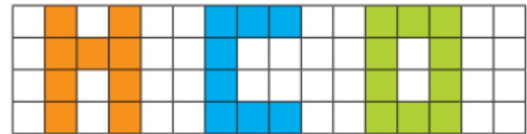
- a) What is the area of this shape?  
b) Draw a different shape with an area that is 2 squares larger.

### year 3

- 6 Huan has a 10 m ball of string.  
He uses 50 cm to replace his shoelace.  
He uses some more of his string to make a bow for his arrows.  
He has 7 m and 45 cm of string left.  
How much string did Huan use to make his bow?

### year 4

- 5 Put these letter shapes in order of size.  
Start with the shape with the smallest area.



- 6 Here are plans of two school fields.

Each has a playing field and a vegetable patch.

#### High Street School



playing field

#### Main Street School



playing field

vegetable patch

- a) What is the difference in the area of the playing fields?  
b) What is the difference in the area of the vegetable patches?  
c) High Street School doubles the size of its vegetable patch.  
Main Road School adds 1 square to its vegetable patch.  
Which school now has the larger vegetable patch?  
Show your working.

# Plenary

## True or False?

Subtract lengths

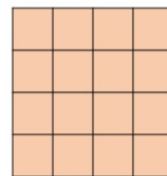
When subtracting lengths, it is important to convert them both into the same unit of measurement.



## True or False?

Compare

I can change the area of the shape by rearranging the squares.



Year 3 NUMERACY TARGET GRIDS						
I can compare and order numbers up to 1000.	I can solve missing number problems.	I can solve multiplication and division problems, using scaling.	I can measure the perimeter of simple 2-D shapes	I can solve problems involving fractions	I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	I know how many seconds are in a minute, days in each month, year and leap year.
I can count from 0 in multiples of 4, 8, 50 and 100.	I can estimate the answer to a calculation and use inverse operations to check	I can solve multiplication and division problems.	I can estimate and read time to the nearest minute and compare times using appropriate vocabulary .	I can compare and order fractions, and fractions with the same denominator.	I identify whether angles are greater than or less than a right angle.	
I can identify, represent and estimate numbers in different contexts.	I can solve addition and subtraction problems.	I can use mental strategies to multiply a 2-digit number by a 1 digit number.	I can tell the time using Roman numerals from I to XII	I can add and subtract fractions with the same denominator within one whole. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$	I can recognise that two right angles make a half-turn. 3 make 3/4 of a turn and 4 make a complete turn.	I can solve two-step problems using presented data
I can find 10 or 100 more or less than a given number.	I can subtract numbers up to three digits using an efficient written method.	I can write and calculate statements for X and +. Using the multiplication tables that I know.	I can tell and write the time from an analogue clock and 12-hour and 24-hour clocks.	I can recognise and show, using diagrams, equivalent fractions.	I can identify right angles.	I can solve one-step problems using presented data
I can recognise the place value of each digit in a three-digit number.	I can add numbers up to three digits using an efficient written method.	I can recall and use multiplication and division facts for the 8 times table.	I can add and subtract amounts of money to give change using £ and p.	I can recognise and use fractions as numbers.	I can recognise angles as a property of shape or a description of a turn.	I can interpret and present data using tables.
I can solve number problems and practical problems.	I can add and subtract a 3 digit-number and hundreds mentally.	I can recall and use multiplication and division facts for the 4 times table.	I can measure and compare, add and subtract volume/capacity (l/ml)	I can find and write fractions for a set of objects.	I can recognise 3-D shapes in different orientations.	I can interpret and present data using pictograms.
I can read and write numbers to 100 in numerals and in words.	I can add and subtract a 3 digit-number and tens mentally.	I can recall and use multiplication and division facts for the 3 times table.	I can measure and compare, add and subtract mass (kg/g)	I recognise that tenths arise from dividing an object into 10 equal parts.	I can make 3-D shape using modelling materials.	I can interpret and present data using bar charts.
	I can add and subtract a 3 digit-number and ones mentally.	I can use efficient written methods to multiply a 2 digit and a 1 digit number.	I can measure and compare, add and subtract lengths (m/cm/mm)	I can count up and down in tenths.	I can draw 2-D shapes.	
Number and Place Value	Addition and Subtraction	Multiplication and Division	Measurements	Fractions	Geometry	Statistics



Year 4 NUMERACY TARGET GRIDS						
I can read Roman numerals to 100 (I to C) and know that over time the numeral system changed to include the concept of zero and place value .	I know factor pairs, using my times table knowledge.	I solve simple measure and money problems involving fractions and decimals to two places.	I round decimals with one decimal place to the nearest whole number and compare.	I solve problems finding fractions of amounts including non-unit fractions like $\frac{3}{4}$		
I can solve number and practical problems	I can solve multiplication and division problems, including simple scaling.	I can solve problems involving converting from: hours to minutes; minutes to seconds; years to months; weeks to days.	I can find the effect of $\div$ a number by 10 and 100 and identify the value of the digits	I can plot specified points and draw sides to complete a given polygon.		I can draw line graphs.
I can round any number to the nearest 10, 100 or 1000	I can multiply a three — digit number by a one—digit number using a formal written method.	I can read, write and convert time between analogue and digital 12— and 24—hour clocks.	I can recognise and write decimal equivalents to $\frac{1}{2}$ , $\frac{1}{4}$ , and $\frac{3}{4}$ .	I describe movements between positions as translations of a given unit to the left/right and up/down.		I can solve 'difference' problems using information presented in bar charts, pictograms, tables and other graphs.
I can identify, represent and estimate numbers.	I can multiply a two—digit number by a one—digit number using a formal written method.	I can estimate, compare and calculate different measure, including money in pounds and pence.	I can recognise and write decimal equivalents of any number of tenths or hundredths .	I can describe positions on a 2-D grid as co-ordinates in the first quadrant.		I can solve 'sum' problems using information presented in bar charts, pictograms, tables and other graphs.
I can compare and order numbers beyond 1000.	I can use inverse operations to check answers to a calculation.	I can use place value and known derived facts to multiply 3 numbers .	I can add and subtract fractions with the same denominator.	I can complete a simple symmetric figure with respect to a specific line of symmetry.		I can solve 'comparison' problems using information presented in bar charts, pictograms, tables and other graphs.
I can recognise the place value of each digit in a four —digit number.	I can estimate to check answers to a calculation.	I can use place value and known derived facts to multiply and divide men-	I can find the area of rectilinear shapes by counting squares.	I can count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.		I can interpret and present data using time graphs.
I can count backwards through zero to include negative numbers.	I can subtract numbers with up to 4 digits using efficient methods.	I can explain commutativity in multiplication.	I measure and calculate the perimeter of a rectilinear shape in cm and m	I can recognise and show, using diagrams, families of common equivalent fractions.		I can interpret and present data using bar charts.
I can find 1000 more or less than a given number	I can add numbers with up to 4 digits using efficient methods.	I can recall multiplication and division facts for times tables up to $12 \times 12$ .	I can convert between different units of measure	I can compare and classify geometric shapes, including quadrilaterals and triangles		
I can count in multiples of 6, 7, 9, 25 and 1000						
<b>Number and Place Value</b>	<b>Addition and Subtraction</b>	<b>Multiplication and Division</b>	<b>Measurements</b>	<b>Fractions and Decimals</b>	<b>Geometry</b>	<b>Statistics</b>

2 3.0 3. 2 2

LO: To know that perimeter is the distance around the outside of a 2-d. shape.

I know that to measure the perimeter, I need to measure the outside of the shape.

I can measure the perimeter of shapes.

I understand which shapes will have longer perimeters than others.

LO: To calculate the perimeter by counting on a grid.

I know that rectilinear shapes are where the sides meet at right angles.

I can use the squares on a grid to help me calculate the perimeter.

I understand that to calculate perimeter, I need to calculate the total of each side of the shape.

**Hit the  
Button**

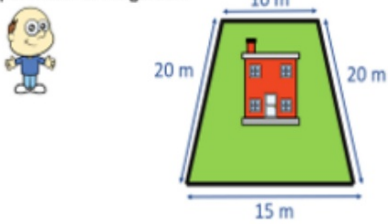
Halves

Division  
Facts

Square  
Numbers



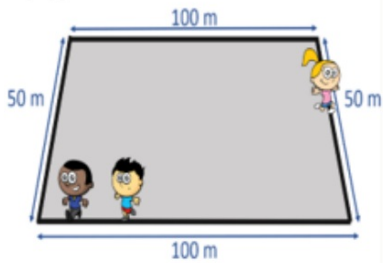
Mr Rose wants to put up a new fence around the perimeter of his garden.



$$10\text{ m} + 20\text{ m} + 15\text{ m} + 20\text{ m} = 65\text{ m}$$

How many metres of fencing does he need to buy?

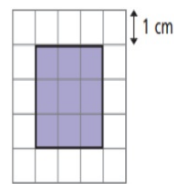
The children are running around the perimeter of the playground.



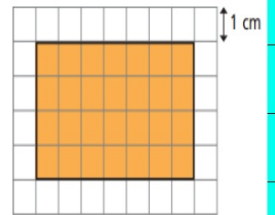
How far do they run on each lap?

1 Work out the perimeter of each rectangle.

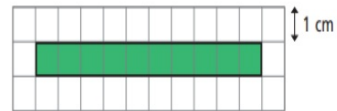
a)



c)



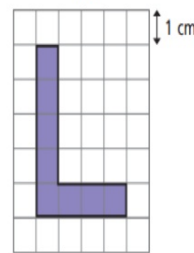
b)



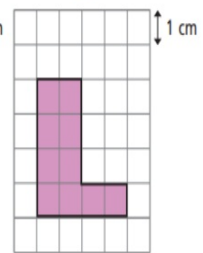
2 Which of the hexagons has the greatest perimeter?

Show all your workings.

A



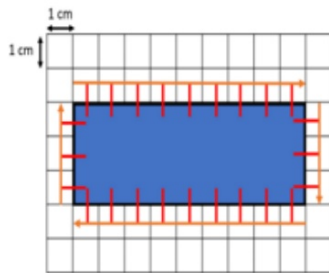
B



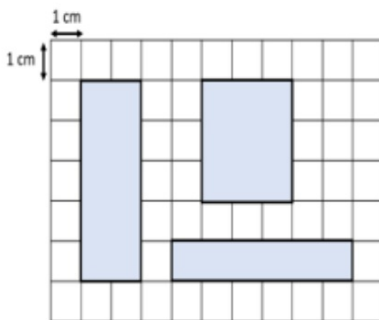
3 Draw two different rectangles with a perimeter of 14 cm.

### Year 3

What is the perimeter of the rectangle?

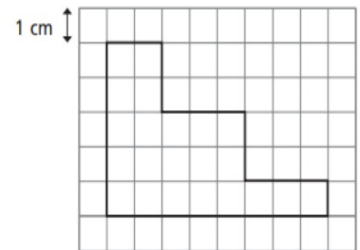


What is the perimeter of these shapes?



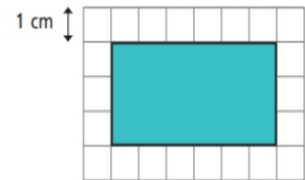
### Year 4

- 4 Work out the perimeter of the shape.



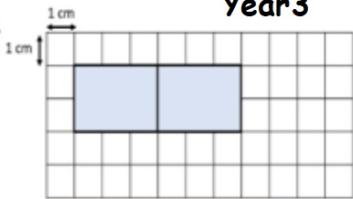
- 5 Draw two shapes with a perimeter of 20 cm.  
Your shapes should **not** be rectangles.

- 6 Work out the perimeter of the rectangle.



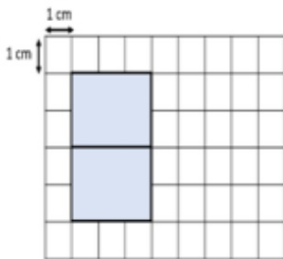
Annie joins 2 tiles together

Year3

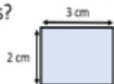


If one tile has a perimeter of 10 cm, two tiles must have a perimeter of 20 cm.

Annie joins 2 tiles together



How many different perimeters can you make using 3 of Annie's tiles?



What is the longest possible perimeter?

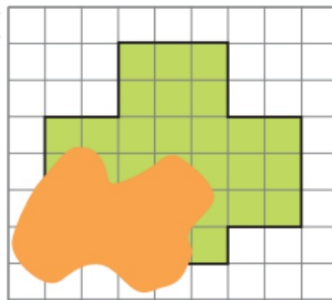
What is the shortest?

What if you used 4 tiles?

Year4

7

1 cm



A shape is drawn on a square grid.  
Part of the shape is hidden.  
What could the perimeter of the shape be?  
Is there more than one answer?

## Plenary

### True or False?

Measure perimeter

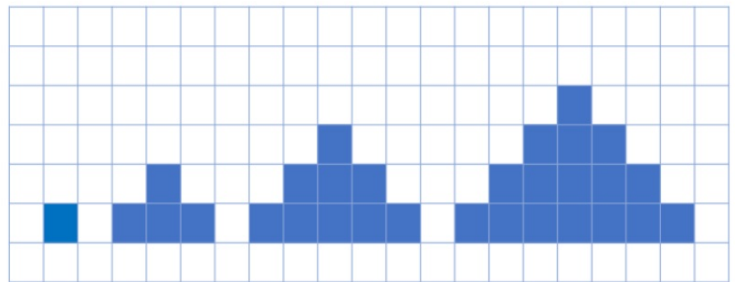
Perimeter is the distance  
around a shape.

### True or False?

Perimeter on a grid

Perimeter on a grid

The next shape in the sequence would have a  
perimeter of 28 cm.



Year 3

NUMERACY  
TARGET GRIDS

I can compare and order numbers up to 1000.

I can count from 0 in multiples of 4, 8, 50 and 100.

I can identify, represent and estimate numbers in different contexts.

I can find 10 or 100 more or less than a given number.

I can recognise the place value of each digit in a three-digit number.

I can solve number problems and practical problems.

I can read and write numbers to 100 in numerals and in words.

I can solve missing number problems.

I can estimate the answer to a calculation and use inverse operations to check

I can solve addition and subtraction problems.

I can subtract numbers up to three digits using an efficient written method.

I can add numbers up to three digits using an efficient written method.

I can add and subtract a 3 digit-number and hundreds mentally.

I can add and subtract a 3 digit-number and tens mentally.

I can add and subtract a 3 digit-number and ones mentally.

I can solve multiplication and division problems, using scaling.

I can solve multiplication and division problems.

I can use mental strategies to multiply a 2-digit number by a 1 digit number.

I can write and calculate statements for X and +. Using the multiplication tables that I know.

I can recall and use multiplication and division facts for the 8 times table.

I can recall and use multiplication and division facts for the 4 times table.

I can recall and use multiplication and division facts for the 3 times table.

I can use efficient written methods to multiply a 2 digit and a 1 digit number.

I can measure the perimeter of simple 2-D shapes

I can estimate and read time to the nearest minute and compare times using appropriate vocabulary.

I can tell the time using Roman numerals from I to XII

I can tell and write the time from an analogue clock and 12-hour and 24-hour clocks.

I can add and subtract amounts of money to give change using £ and p.

I can measure and compare, add and subtract volume/capacity (l/ml)

I can measure and compare, add and subtract mass (kg/g)

I can measure and compare, add and subtract lengths (m/cm/mm)

I can solve problems involving fractions

I can compare and order fractions, and fractions with the same denominator.

I can add and subtract fractions with the same denominator within one whole.  
 $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$

I can recognise and show, using diagrams, equivalent fractions.

I can recognise and use fractions as numbers.

I can find and write fractions for a set of objects.

I recognise that tenths arise from dividing an object into 10 equal parts.

I can count up and down in tenths.

I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

I identify whether angles are greater than or less than a right angle.

I can recognise that two right angles make a half-turn. 3 make 3/4 of a turn and 4 make a complete turn.

I can identify right angles.

I can recognise angles as a property of shape or a description of a turn.

I can recognise 3-D shapes in different orientations.

I can make 3-D shape using modelling materials.

I can draw 2-D shapes.

I know how many seconds are in a minute, days in each month, year and leap year.

I can solve two-step problems using presented data

I can solve one-step problems using presented data

I can interpret and present data using tables.

I can interpret and present data using pictograms.

I can interpret and present data using bar charts.

Number and Place Value

Addition and Subtraction

Multiplication and Division

Measurements

Fractions

Geometry

Statistics

**Year 4  
NUMERACY  
TARGET GRIDS**

I can read Roman numerals to 100 (I to C) and know that over time the numeral system changed to include the concept of zero and place value .

I can solve subtraction two step problems deciding which operations and methods to use and why.

I know factor pairs, using my times table knowledge.

I can solve multiplication and division problems, including simple scaling.

I solve simple measure and money problems involving fractions and decimals to two places.

I can solve problems involving converting from: hours to minutes; minutes to seconds; years to months; weeks to days.

I round decimals with one decimal place to the nearest whole number and compare.

I can find the effect of  $\div$  a number by 10 and 100 and identify the value of the digits

I solve problems finding fractions of amounts including non-unit fractions like  $\frac{3}{4}$

I can plot specified points and draw sides to complete a given polygon.

I can draw line graphs.

I can solve number and practical problems

I can solve addition two step problems deciding which operations and methods to use and why.

I can multiply a three — digit number by a one—digit number using a formal written method.

I can read, write and convert time between analogue and digital 12— and 24—hour clocks.

I can recognise and write decimal equivalents to  $\frac{1}{2}$  ,  $\frac{1}{4}$ , and  $\frac{3}{4}$ .

I describe movements between positions as translations of a given unit to the left/right and up/down.

I can solve 'difference' problems using information presented in bar charts, pictograms, tables and other graphs.

I can round any number to the nearest 10, 100 or 1000

I can use inverse operations to check answers to a calculation.

I can multiply a two—digit number by a one—digit number using a formal written method.

I can estimate, compare and calculate different measure, including money in pounds and pence.

I can recognise and write decimal equivalents of any number of tenths or hundredths .

I can describe positions on a 2-D grid as co-ordinates in the first quadrant.

I can solve 'sum' problems using information presented in bar charts, pictograms, tables and other graphs.

I can identify, represent and estimate numbers.

I can estimate to check answers to a calculation.

I can use place value and known derived facts to multiply 3 numbers .

I can find the area of rectilinear shapes by counting squares.

I can add and subtract fractions with the same denominator.

I can complete a simple symmetric figure with respect to a specific line of symmetry.

I can solve 'comparison' problems using information presented in bar charts, pictograms, tables and other graphs.

I can compare and order numbers beyond 1000.

I can subtract numbers with up to 4 digits using efficient methods.

I can use place value and known derived facts to multiply and divide men-

I measure and calculate the perimeter of a rectilinear shape in cm and m

I can count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.

I can identify lines of symmetry in 2-D shapes presented in different orientations.

I can interpret and present data using time graphs.

I can recognise the place value of each digit in a four —digit number.

I can add numbers with up to 4 digits using efficient methods.

I can explain commutativity in multiplication.

I can convert between different units of measure

I can recognise and show, using diagrams, families of common equivalent fractions.

I can identify acute and obtuse angles and compare and order up to two right angles by size.

I can interpret and present data using bar charts.

I can count backwards through zero to include negative numbers.

I can find 1000 more or less than a given number

I can count in multiples of 6, 7, 9, 25 and 1000

**Number and Place Value**

**Addition and Subtraction**

**Multiplication and Division**

**Measurements**

**Fractions and Decimals**

**Geometry**

**Statistics**



2 4.0 3. 2 2

LO: To know that perimeter is the distance around the outside of a 2-d shape.

I know that to measure the perimeter, I need to measure the outside of the shape.

I can measure the perimeter of shapes.

I understand that to calculate perimeter, I need to calculate the total of each side of the shape.

Year 3

Year 4

LO: To calculate the perimeter of a rectangle.

I know how to find the perimeter of rectangles and squares using given measurements.

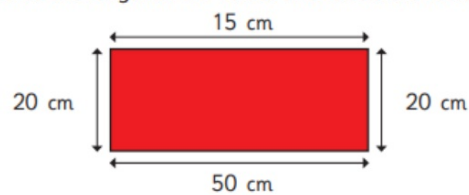
I can find the perimeter of rectangles.

I understand how to use my knowledge of perimeter to calculate missing lengths.

6

Aisha is working out the perimeter of a rectangle.

She measures the length of all 4 sides and labels the rectangle.



How do you know that Aisha's measurements are wrong?

# Flashback 4

Year 3 | Week 8 | Day 1



How many metres are equal to 300 centimetres?

Which unit of measurement would you use to measure the length of the classroom?

centimetres  metres  millimetres

How many centimetres does a ruler usually mark to show 21 centimetres?

Calculate  $345 + 472$ .




# Flashback 4

Year

1) Calculate  $34 \text{ cm} + 60 \text{ mm}$ .

2) Find the missing number.  
 $2,457 - \square = \square + 407$

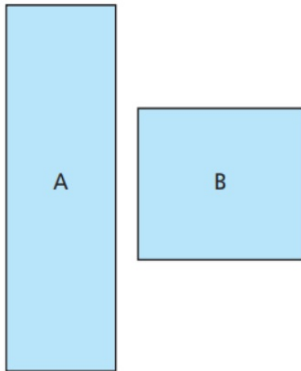
3) Find how many exchanges there are when calculating  $6,932 + 2,358 = 9,290$  using column addition.

4) Do these hexagons have vertical lines of symmetry? 



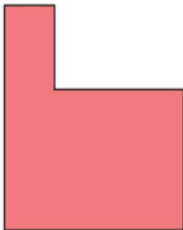
# Year 3

1 Here are two rectangles.



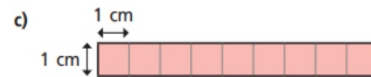
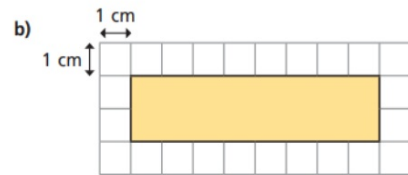
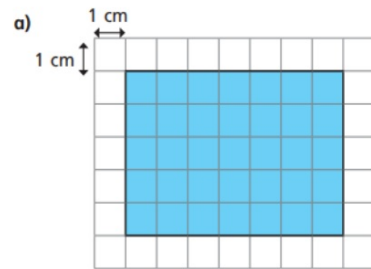
Use a piece of wool to measure the perimeter of each rectangle.  
How much wool did you need for each one?  
Give units with your answer.

2 Use a piece of wool to measure the perimeter of the hexagon.  
How much wool did you need? Give units with your answer.

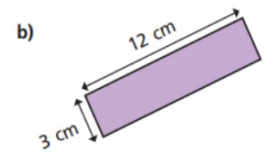
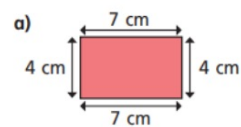


# Year 4

1 Work out the perimeter of each rectangle.



2 Work out the perimeter of the rectangles.



# Year 3

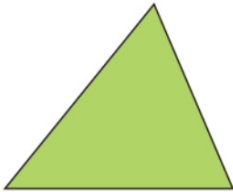
- 3 a) Measure each side of the rectangle and label it.



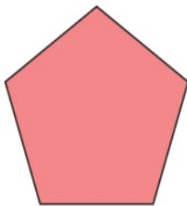
- b) What is the perimeter of the rectangle?

- 4 Measure the perimeter of each shape.

a)

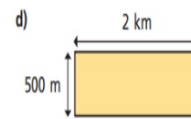
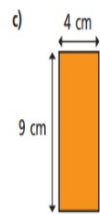


b)

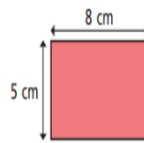


- 5 Draw a triangle with a perimeter of 15 cm.

# Year 4



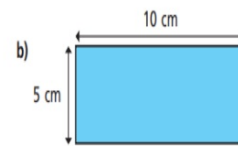
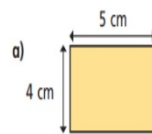
- Tommy is working out the perimeter of some rectangles.



$$8 \text{ cm} + 5 \text{ cm} = 13 \text{ cm}$$

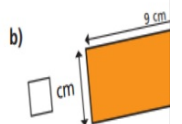
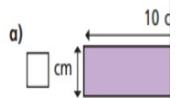
$$13 \text{ cm} \times 2 = 26 \text{ cm}$$

Use Tommy's method to find the perimeter of these rectangles.



- 4 Each lolly stick is 8 cm long. Find the perimeter of the...

- 5 Each of these rectangles. Work out the missing length.

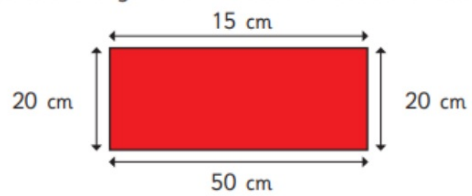


What do you notice?  
Find any other rectangles...

## Extension

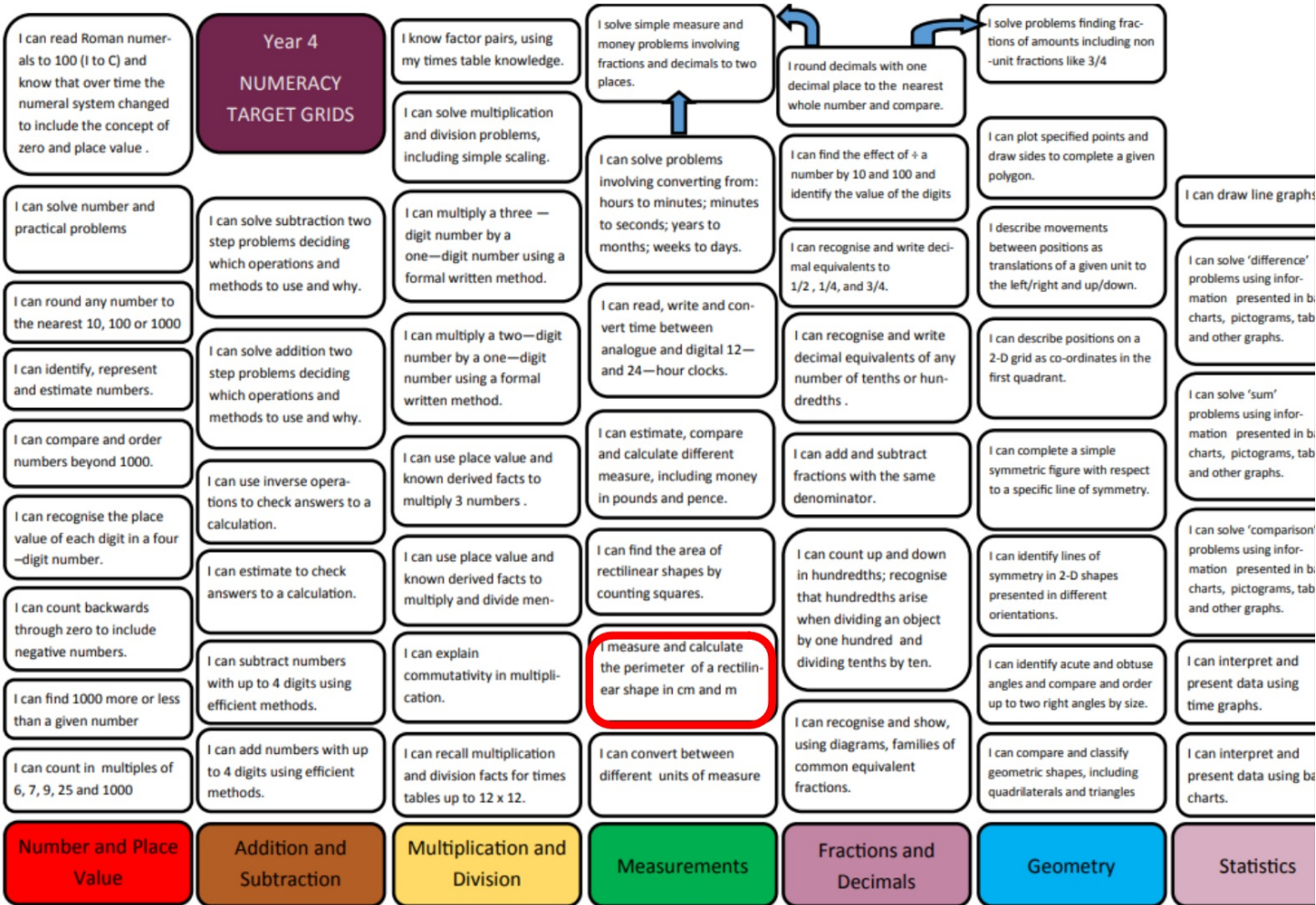
## Extension

- 6 Aisha is working out the perimeter of a rectangle. She measures the length of all 4 sides and labels the rectangle.



How do you know that Aisha's measurements are wrong?

Year 3 NUMERACY TARGET GRIDS						
I can compare and order numbers up to 1000.	I can solve missing number problems.	I can solve multiplication and division problems, using scaling.	I can measure the perimeter of simple 2-D shapes	I can solve problems involving fractions	I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	I know how many seconds are in a minute, days in each month, year and leap year.
I can count from 0 in multiples of 4, 8, 50 and 100.	I can estimate the answer to a calculation and use inverse operations to check	I can solve multiplication and division problems.	I can estimate and read time to the nearest minute and compare times using appropriate vocabulary.	I can compare and order fractions, and fractions with the same denominator.	I identify whether angles are greater than or less than a right angle.	
I can identify, represent and estimate numbers in different contexts.	I can solve addition and subtraction problems.	I can use mental strategies to multiply a 2-digit number by a 1 digit number.	I can tell the time using Roman numerals from I to XII	I can add and subtract fractions with the same denominator within one whole. $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$	I can recognise that two right angles make a half-turn. 3 make $\frac{3}{4}$ of a turn and 4 make a complete turn.	I can solve two-step problems using presented data
I can find 10 or 100 more or less than a given number.	I can subtract numbers up to three digits using an efficient written method.	I can write and calculate statements for X and +. Using the multiplication tables that I know.	I can tell and write the time from an analogue clock and 12-hour and 24-hour clocks.	I can recognise and show, using diagrams, equivalent fractions.	I can identify right angles.	I can solve one-step problems using presented data
I can recognise the place value of each digit in a three-digit number.	I can add numbers up to three digits using an efficient written method.	I can recall and use multiplication and division facts for the 8 times table.	I can add and subtract amounts of money to give change using £ and p.	I can recognise and use fractions as numbers.	I can recognise angles as a property of shape or a description of a turn.	I can interpret and present data using tables.
I can solve number problems and practical problems.	I can add and subtract a 3 digit-number and hundreds mentally.	I can recall and use multiplication and division facts for the 4 times table.	I can measure and compare, add and subtract volume/capacity (l/ml)	I can find and write fractions for a set of objects.	I can recognise 3-D shapes in different orientations.	I can interpret and present data using pictograms.
I can read and write numbers to 100 in numerals and in words.	I can add and subtract a 3 digit-number and tens mentally.	I can recall and use multiplication and division facts for the 3 times table.	I can measure and compare, add and subtract mass (kg/g)	I recognise that tenths arise from dividing an object into 10 equal parts.	I can make 3-D shape using modelling materials.	I can interpret and present data using bar charts.
I can add and subtract a 3 digit-number and ones mentally.	I can use efficient written methods to multiply a 2 digit and a 1 digit number.	I can measure and compare, add and subtract lengths (m/cm/mm)	I can count up and down in tenths.	I can draw 2-D shapes.		
Number and Place Value	Addition and Subtraction	Multiplication and Division	Measurements	Fractions	Geometry	Statistics



2 5 0 3 . 2 2

LO: To calculate perimeter.

I know how to calculate the perimeter of different shapes.

I can use my understanding of the properties of 2-d shapes to calculate their perimeter.

I understand that there are different methods for calculating the perimeter of a shape. For example, use repeated addition or multiplication.

Year 3

Year 4

LO: To calculate the perimeter of rectilinear shapes.

I know how to use addition and subtraction to find the lengths of missing sides.

I can use part-whole models to support my understanding of how to calculate the missing sides.

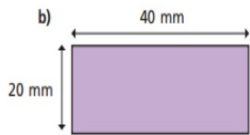
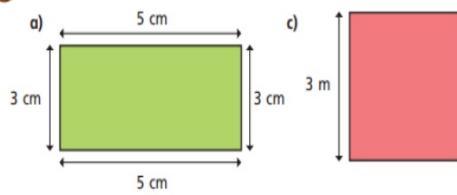
I understand why opposite sides are important when calculating perimeter.



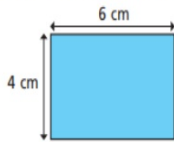


# Year 3

1 Work out the perimeter of each shape.



2 Rosie and Eva work out the perimeter of the shape below.



Rosie

$6 + 4 = 10$ ,  
so the perimeter is  
10 cm.



Eva

The perimeter is  
20 cm.

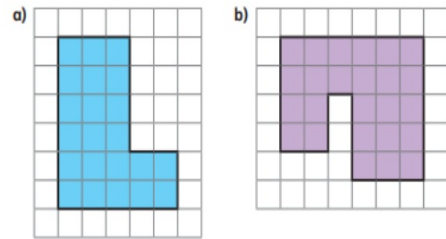
Who is correct?

How do you know?

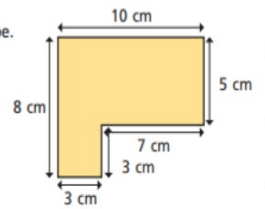
# Year 4

1 The length of each square on the grid is 1 cm.

Work out the perimeter of the shapes.

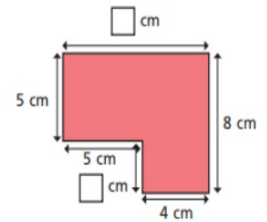


2 Work out the perimeter of the shape.



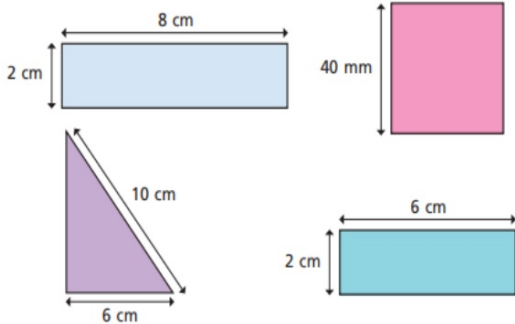
3 a) Work out the missing lengths.

b) What is the perimeter of the shape?

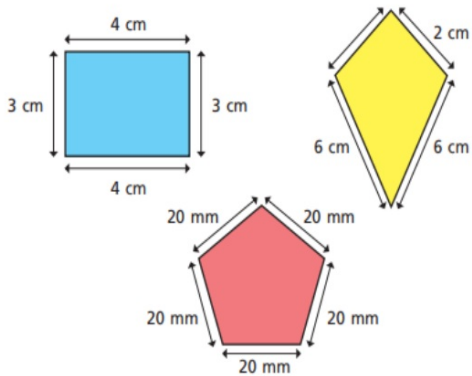


# Year 3

3 Which shapes have a perimeter of 16 cm.



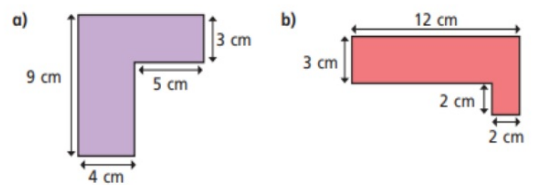
4 Which shape has the longest perimeter? Tick your answer.



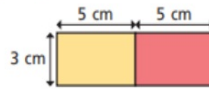
Show all your workings.

# Year 4

4 Work out the perimeter of each shape.



5 Mo puts two 5 cm by 3 cm rectangles next to each other.



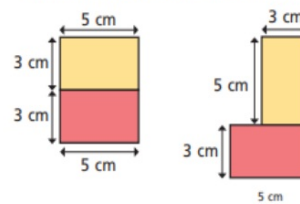
The perimeter of each small rectangle is 16 cm, so the perimeter of my larger rectangle must be  $2 \times 16 \text{ cm} = 32 \text{ cm}$ .

a) Is Mo correct?

Work out the perimeter of the larger rectangle to check your answer.

b) Mo puts the rectangles together in different ways.

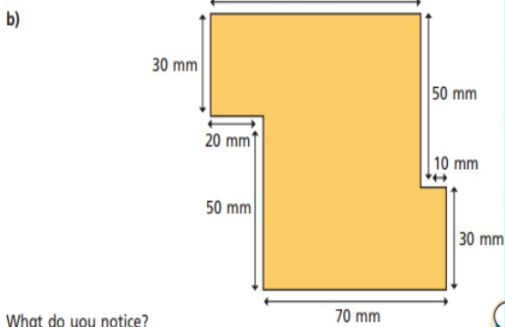
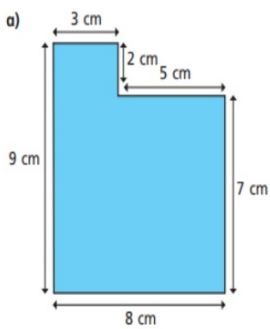
Work out the perimeter of each large shape.





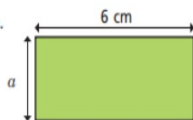
## Year 3

- 5 Work out the perimeter of these shapes.



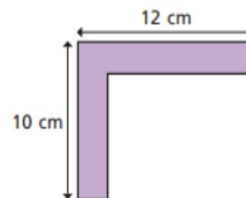
What do you notice?

- 6 This rectangle has a perimeter of 18 cm.  
Work out the length of side  $a$ .



## Year 4

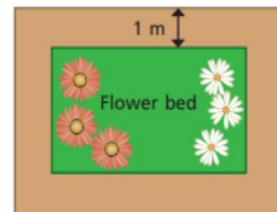
- 6 Dani thinks there isn't enough information to work out the perimeter of the shape.



Is Dani correct?

Explain your answer.

- 7 A rectangular flower bed is 5 m long and 3 m wide.  
The path around the flower bed is 1 m wide.



- a) What is the perimeter of the flower bed?  
b) What is the perimeter of the outside of the path?

# Plenary

True or False ?

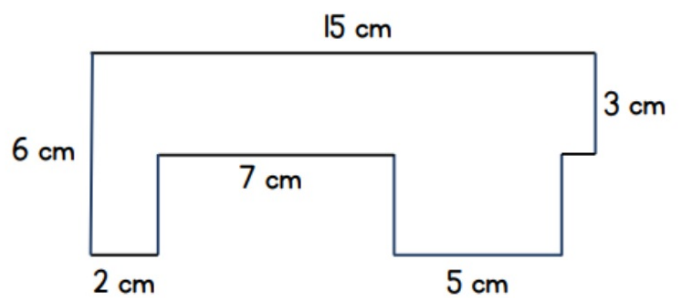
Calculate perimeter

There is more than one method to find the perimeter of a square.

True or False ?

Perimeter of rectilinear shapes

The perimeter of the shape is 38 cm.



**Year 3**  
**NUMERACY**  
**TARGET GRIDS**

I can compare and order numbers up to 1000.

I can count from 0 in multiples of 4, 8, 50 and 100.

I can identify, represent and estimate numbers in different contexts.

I can find 10 or 100 more or less than a given number.

I can recognise the place value of each digit in a three-digit number.

I can solve number problems and practical problems.

I can read and write numbers to 100 in numerals and in words.

I can solve missing number problems.

I can estimate the answer to a calculation and use inverse operations to check.

I can solve addition and subtraction problems.

I can subtract numbers up to three digits using an efficient written method.

I can add numbers up to three digits using an efficient written method.

I can add and subtract a 3 digit-number and hundreds mentally.

I can add and subtract a 3 digit-number and tens mentally.

I can add and subtract a 3 digit-number and ones mentally.

I can solve multiplication and division problems, using scaling.

I can solve multiplication and division problems.

I can use mental strategies to multiply a 2-digit number by a 1 digit number.

I can write and calculate statements for X and +. Using the multiplication tables that I know.

I can recall and use multiplication and division facts for the 8 times table.

I can recall and use multiplication and division facts for the 4 times table.

I can recall and use multiplication and division facts for the 3 times table.

I can use efficient written methods to multiply a 2 digit and a 1 digit number.

I can measure the perimeter of simple 2-D shapes

I can estimate and read time to the nearest minute and compare times using appropriate vocabulary.

I can tell the time using Roman numerals from I to XII

I can tell and write the time from an analogue clock and 12-hour and 24-hour clocks.

I can add and subtract amounts of money to give change using £ and p.

I can measure and compare, add and subtract volume/capacity (l/ml)

I can measure and compare, add and subtract mass (kg/g)

I can measure and compare, add and subtract lengths (m/cm/mm)

I can solve problems involving fractions

I can compare and order fractions, and fractions with the same denominator.

I can add and subtract fractions with the same denominator within one whole.  
 $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$

I can recognise and show, using diagrams, equivalent fractions.

I can recognise and use fractions as numbers.

I can find and write fractions for a set of objects.

I recognise that tenths arise from dividing an object into 10 equal parts.

I can count up and down in tenths.

I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

I identify whether angles are greater than or less than a right angle.

I can recognise that two right angles make a half-turn. 3 make 3/4 of a turn and 4 make a complete turn.

I can identify right angles.

I can recognise angles as a property of shape or a description of a turn.

I can recognise 3-D shapes in different orientations.

I can make 3-D shape using modelling materials.

I can draw 2-D shapes.

I know how many seconds are in a minute, days in each month, year and leap year.

I can solve two-step problems using presented data

I can solve one-step problems using presented data

I can interpret and present data using tables.

I can interpret and present data using pictograms.

I can interpret and present data using bar charts.

Number and Place Value

Addition and Subtraction

Multiplication and Division

Measurements

Fractions

Geometry

Statistics

**Year 4  
NUMERACY  
TARGET GRIDS**

I can read Roman numerals to 100 (I to C) and know that over time the numeral system changed to include the concept of zero and place value .

I can solve number and practical problems

I can round any number to the nearest 10, 100 or 1000

I can identify, represent and estimate numbers.

I can compare and order numbers beyond 1000.

I can recognise the place value of each digit in a four-digit number.

I can count backwards through zero to include negative numbers.

I can find 1000 more or less than a given number

I can count in multiples of 6, 7, 9, 25 and 1000

I can solve subtraction two step problems deciding which operations and methods to use and why.

I can solve addition two step problems deciding which operations and methods to use and why.

I can use inverse operations to check answers to a calculation.

I can estimate to check answers to a calculation.

I can subtract numbers with up to 4 digits using efficient methods.

I can add numbers with up to 4 digits using efficient methods.

I know factor pairs, using my times table knowledge.

I can solve multiplication and division problems, including simple scaling.

I can multiply a three — digit number by a one—digit number using a formal written method.

I can multiply a two—digit number by a one—digit number using a formal written method.

I can use place value and known derived facts to multiply 3 numbers .

I can use place value and known derived facts to multiply and divide men-

I can explain commutativity in multiplication.

I can recall multiplication and division facts for times tables up to 12 x 12.

I solve simple measure and money problems involving fractions and decimals to two places.

I can solve problems involving converting from: hours to minutes; minutes to seconds; years to months; weeks to days.

I can read, write and convert time between analogue and digital 12— and 24—hour clocks.

I can estimate, compare and calculate different measure, including money in pounds and pence.

I can find the area of rectilinear shapes by counting squares.

I measure and calculate the perimeter of a rectilinear shape in cm and m

I can convert between different units of measure

I round decimals with one decimal place to the nearest whole number and compare.

I can find the effect of + a number by 10 and 100 and identify the value of the digits

I can recognise and write decimal equivalents to 1/2 , 1/4, and 3/4.

I can recognise and write decimal equivalents of any number of tenths or hundredths .

I can add and subtract fractions with the same denominator.

I can count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.

I can recognise and show, using diagrams, families of common equivalent fractions.

I solve problems finding fractions of amounts including non-unit fractions like 3/4

I can plot specified points and draw sides to complete a given polygon.

I describe movements between positions as translations of a given unit to the left/right and up/down.

I can describe positions on a 2-D grid as co-ordinates in the first quadrant.

I can complete a simple symmetric figure with respect to a specific line of symmetry.

I can identify lines of symmetry in 2-D shapes presented in different orientations.

I can identify acute and obtuse angles and compare and order up to two right angles by size.

I can compare and classify geometric shapes, including quadrilaterals and triangles

I can draw line graphs.

I can solve 'difference' problems using information presented in bar charts, pictograms, tables and other graphs.

I can solve 'sum' problems using information presented in bar charts, pictograms, tables and other graphs.

I can solve 'comparison' problems using information presented in bar charts, pictograms, tables and other graphs.

I can interpret and present data using time graphs.

I can interpret and present data using bar charts.

**Number and Place Value**

**Addition and Subtraction**

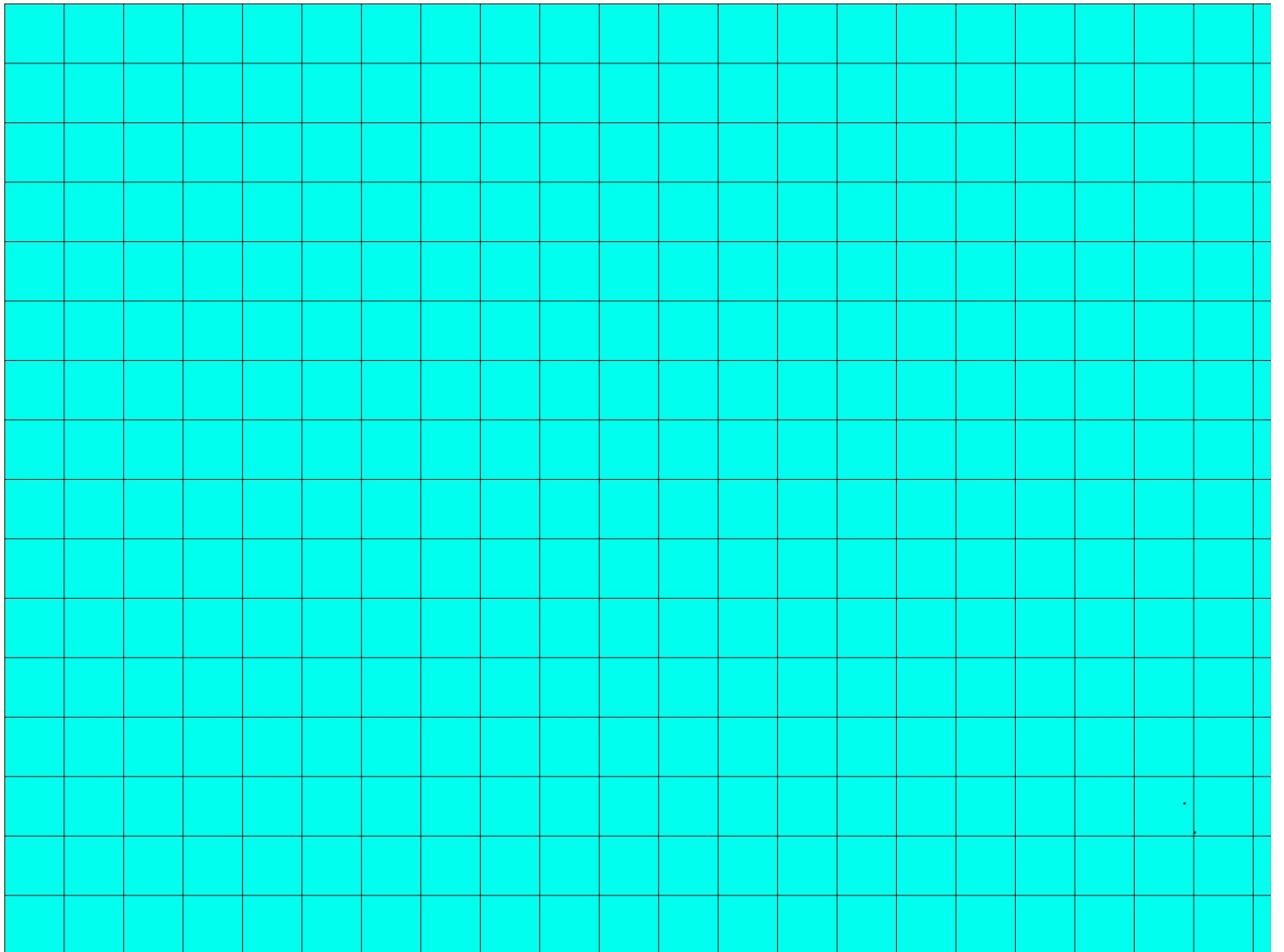
**Multiplication and Division**

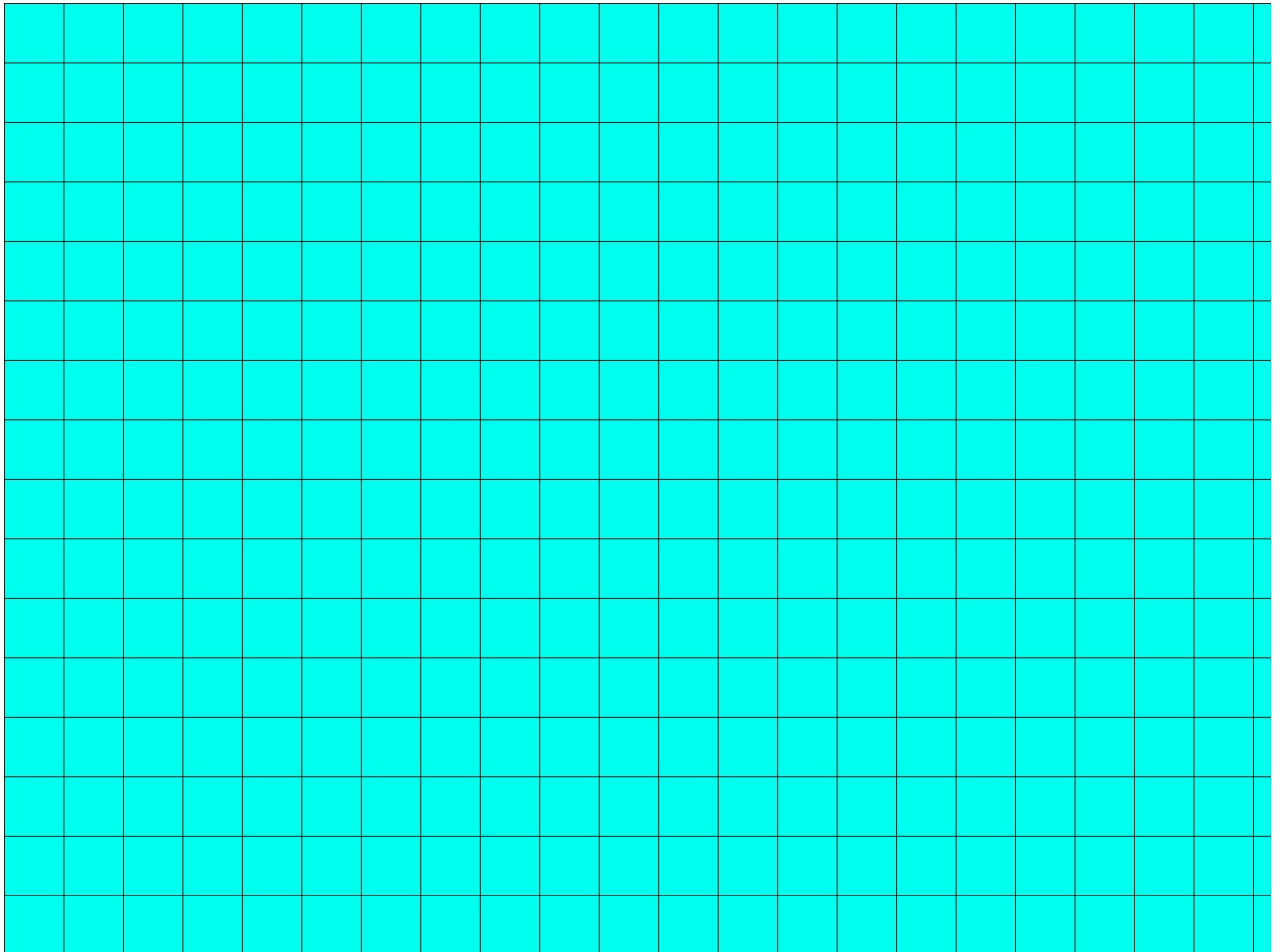
**Measurements**

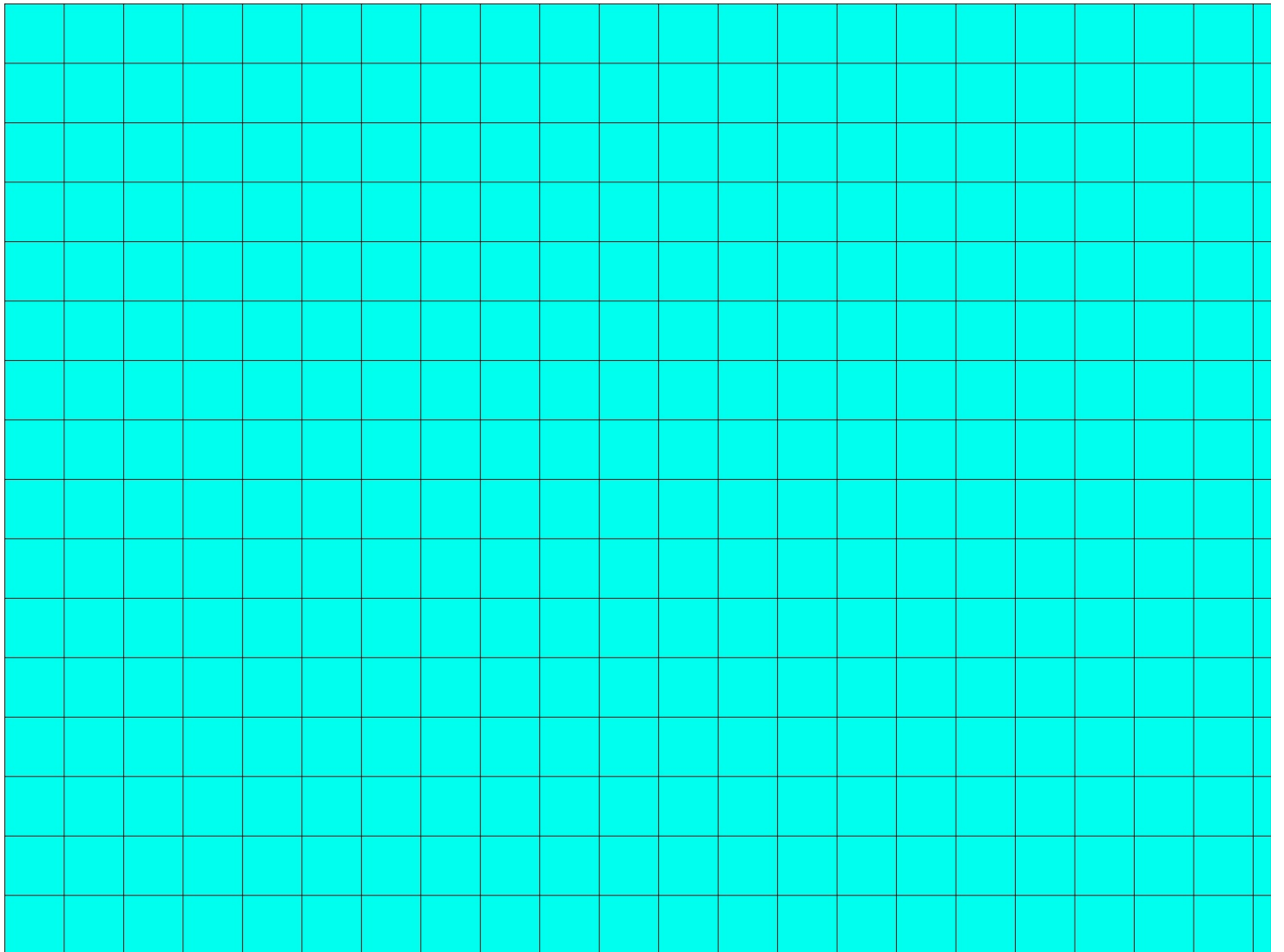
**Fractions and Decimals**

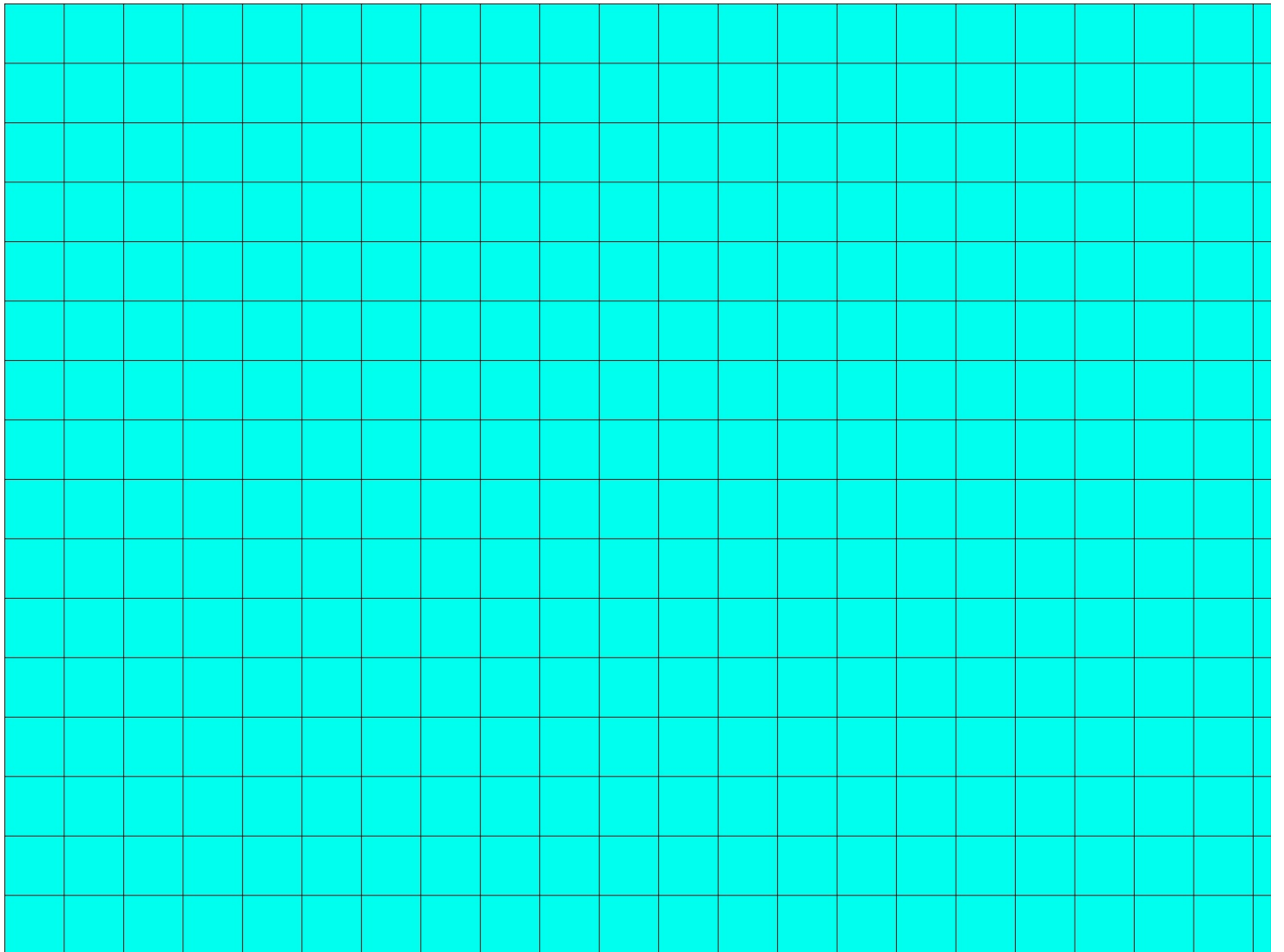
**Geometry**

**Statistics**

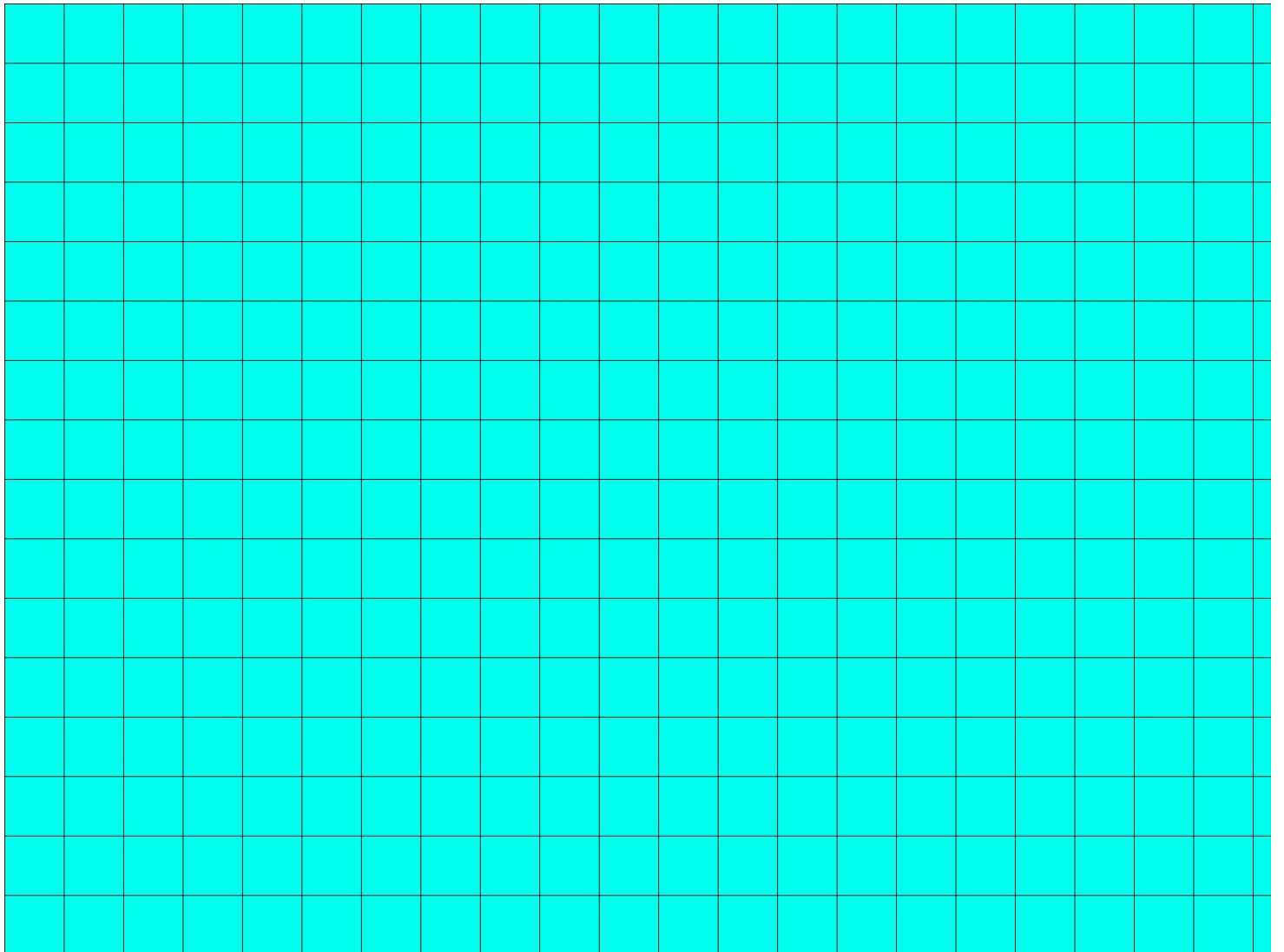


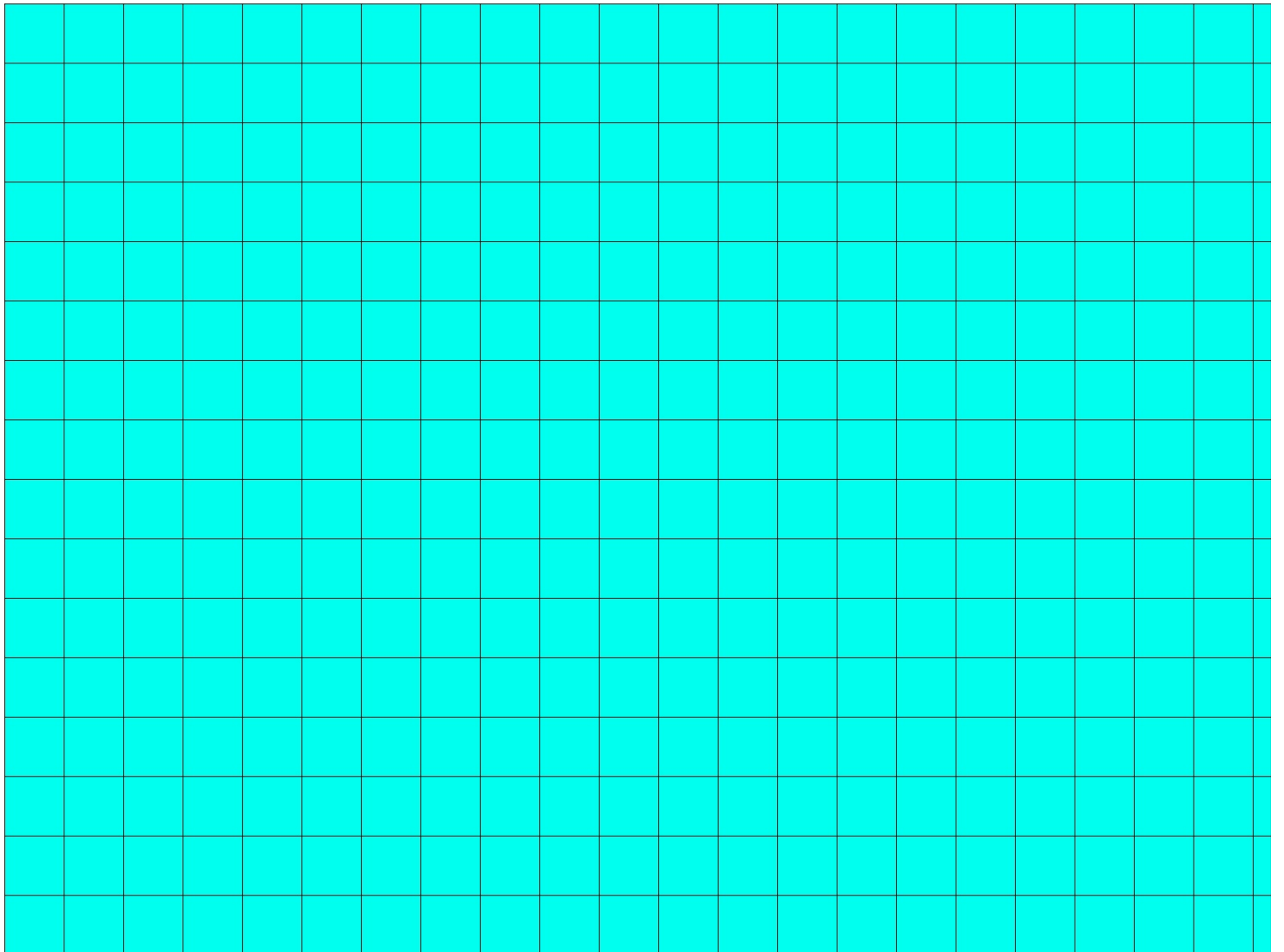


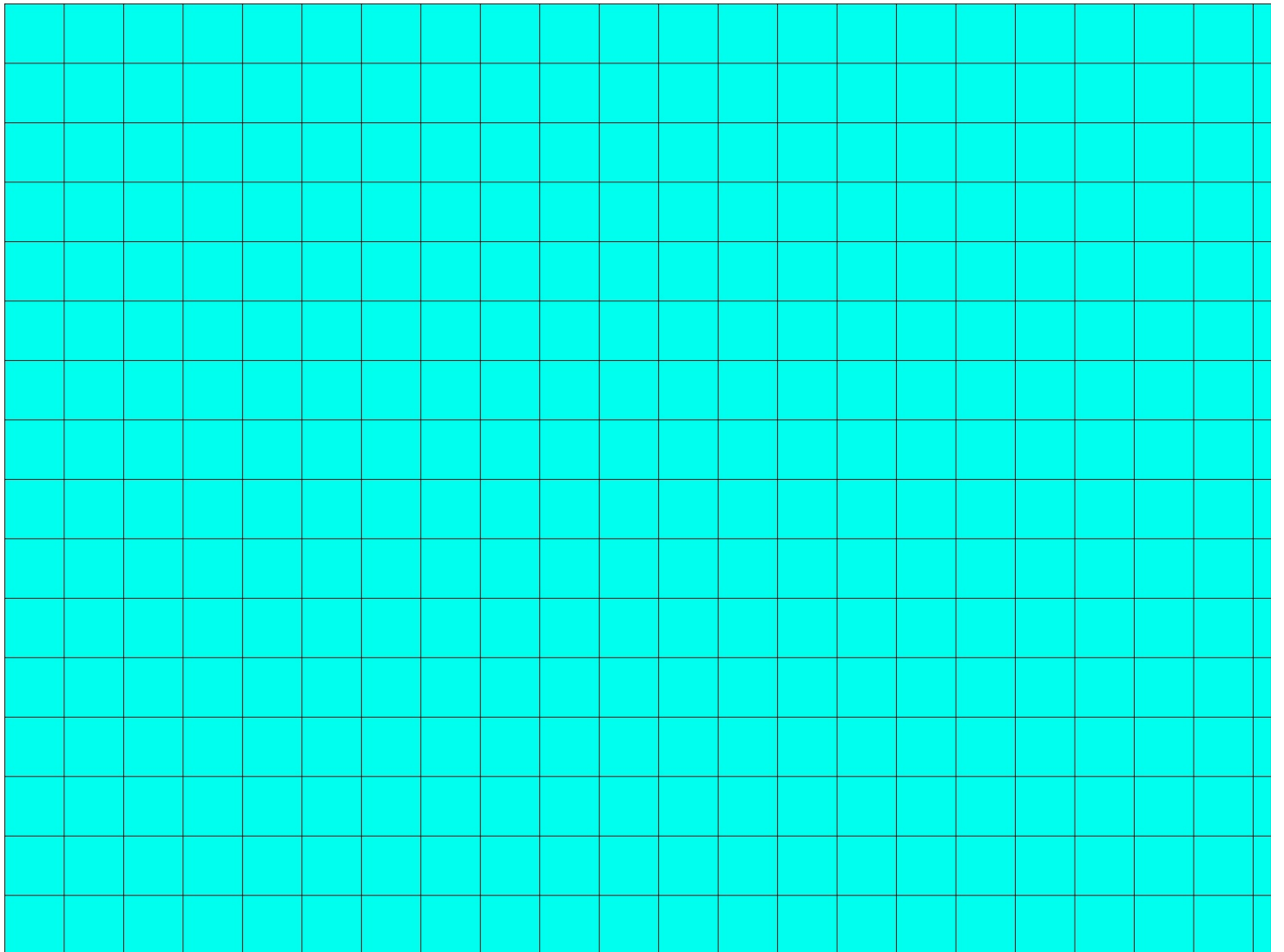












**Year 3**  
**NUMERACY**  
**TARGET GRIDS**

I can solve missing number problems.

I can compare and order numbers up to 1000.

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I can count from 0 in multiples of 4, 8, 50 and 100.

I can solve addition and subtraction problems.

I can identify, represent and estimate numbers in different contexts.

I can subtract numbers up to three digits using an efficient written method.

I can find 10 or 100 more or less than a given number.

I can add numbers up to three digits using an efficient written method.

I can recognise the place value of each digit in a three-digit number.

I can add and subtract a 3 digit-number and hundreds mentally.

I can solve number problems and practical problems.

I can add and subtract a 3 digit-number and tens mentally.

I can read and write numbers to 100 in numerals and in words.

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I can solve problems involving fractions

I can compare and order fractions, and fractions with the same denominator.

I can add and subtract fractions with the same denominator within one whole.  
 $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$

I can recognise and show, using diagrams, equivalent fractions.

I can recognise and use fractions as numbers.

I can find and write fractions for a set of objects.

I recognise that tenths arise from dividing an object into 10 equal parts.

I can count up and down in tenths.

I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

I identify whether angles are greater than or less than a right angle.

I can recognise that two right angles make a half-turn. 3 make 3/4 of a turn and 4 make a complete turn.

I can identify right angles.

I can recognise angles as a property of shape or a description of a turn.

I can recognise 3-D shapes in different orientations.

I can make 3-D shape using modelling materials.

I can draw 2-D shapes.

I know how many seconds are in a minute, days in each month, year and leap year.

I can solve two-step problems using presented data

I can solve one-step problems using presented data

I can interpret and present data using tables.

I can interpret and present data using pictograms.

I can interpret and present data using bar charts.

**Number and Place Value**

**Addition and Subtraction**

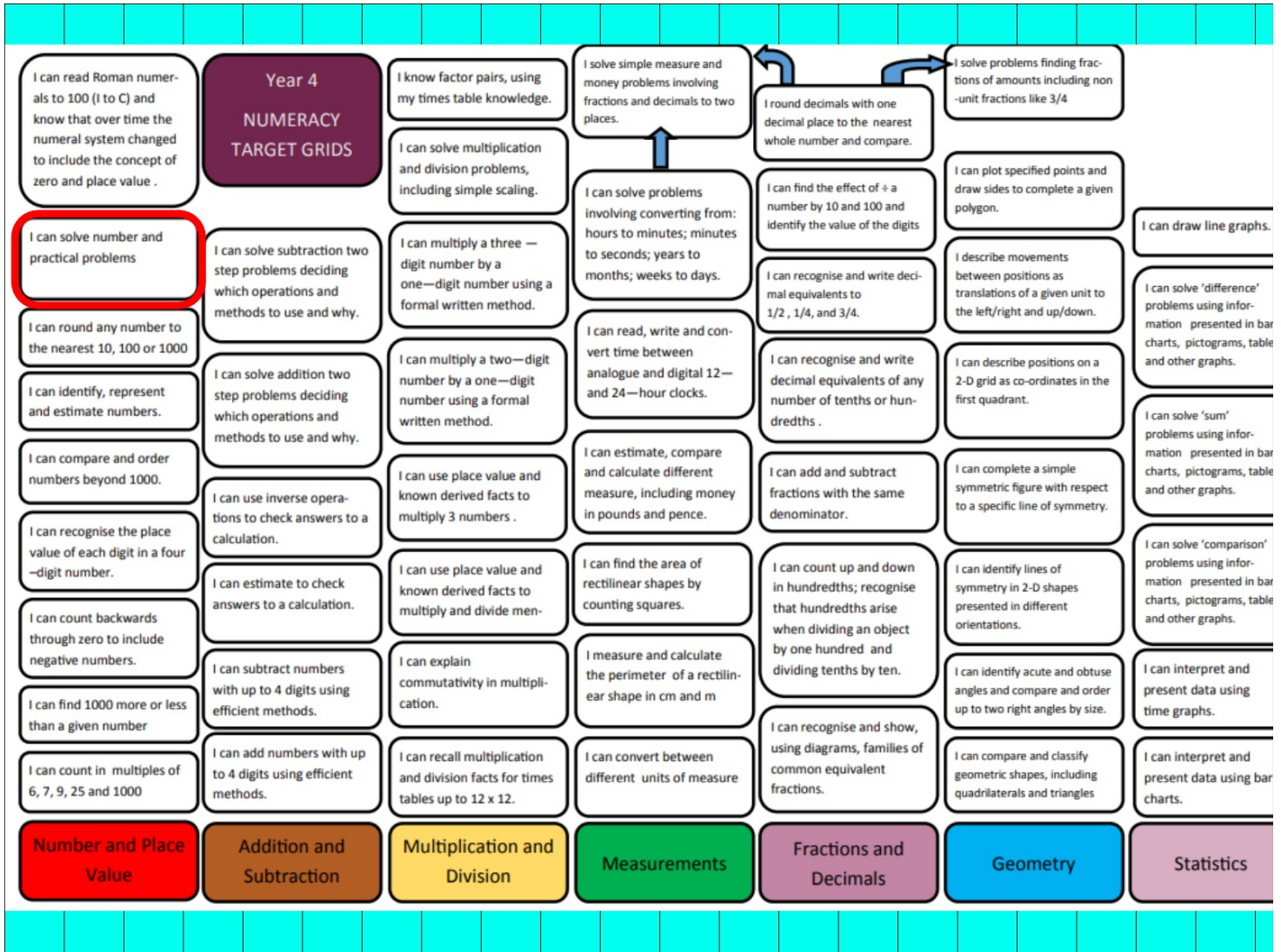
**Multiplication and Division**

**Measurements**

**Fractions**

**Geometry**

**Statistics**

















True or False ?  
True or False ?

Fractions of a set

Fractions of a set

$\frac{4}{8}$  of the cars are green.





















