

Year 3 Blue Knowledge Organiser: Numbers to 1000



100
one hundred



200
two hundred



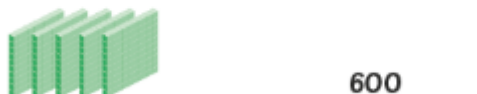
300
three hundred



400
four hundred

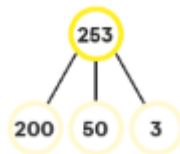


500
five hundred



600
six hundred

Can you count in hundreds to 1000?



Can you count in hundreds, tens and ones?



hundreds	tens	ones
4	2	7

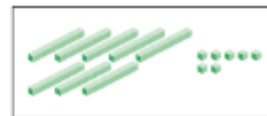
$427 = 4 \text{ hundreds} + 2 \text{ tens} + 7 \text{ ones}$
 $427 = 400 + 20 + 7$

Can you recognise the place value of each digit in a 3-digit number?



7 8

78 is less than 87.



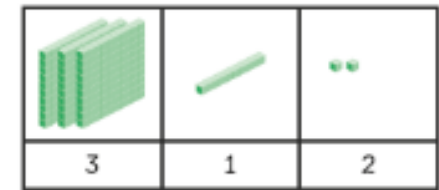
8 7

Can you compare and order numbers up to 1000?



50	100	150	200	250	300	350	400	450
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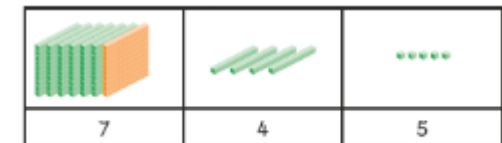
Can you count from 0 in multiples of 50?



Can you find 10 more or less than a given number?



↓ 100 more



Can you find 100 more or less than a given number?

Can you count in fours and eights?



Year 3 Blue Knowledge Organiser: Addition & Subtraction

$6 + 12 = 18$ or $12 + 6 = 18$

There are 18 chairs altogether:

$18 - 12 = 6$

There are 6 blue chairs.

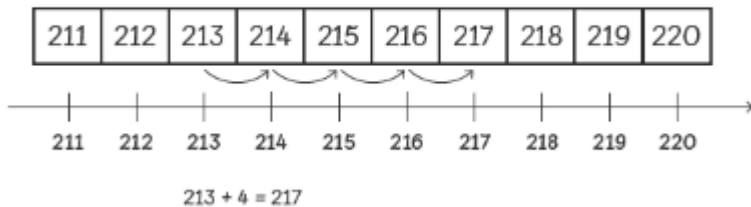
$18 - 6 = 12$

There are 12 red chairs.

Can you understand the commutative law of addition and form a family of addition and subtraction facts?

Add 213 and 4.

Method 1 Count on from 213.



Can you add a 3 digit number to ones without renaming?

	h	t	o
	4	3	2
+	5	2	1
	9	5	3

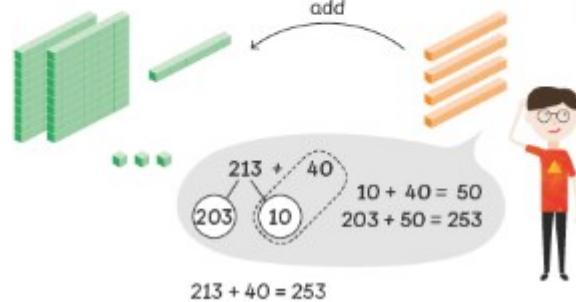
Can you add using the column method of addition?

Add 213 and 40.

Method 1 Count on in tens from 213.

$213 + 40 = 253$

Method 2 Add the tens.



Can you add a 3-digit number to multiples of 10 without renaming?

Count back in tens from 658.

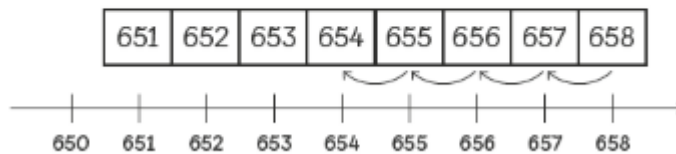
$658 - 40 = 618$



Can you subtract multiples of 10 from a 3-digit number?

Subtract 4 from 658.

Method 1 Count back from 658.



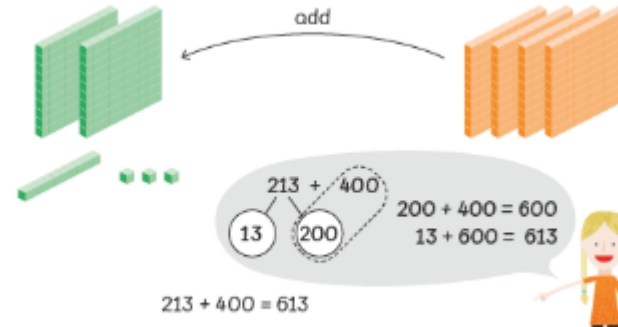
Can you subtract ones from a 3-digit number without renaming?

Add 213 and 400.

Method 1 Count on in hundreds from 213.

$213 + 400 = 613$

Method 2 Add the hundreds.

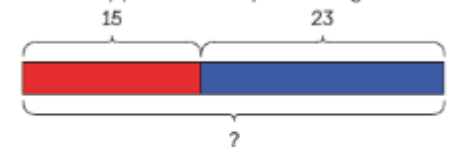


Can you add a 3-digit number to multiples of 100 without renaming?

	h	t	o
	9	7	5
-	7	2	3
	2	5	2

Can you subtract two 3-digit numbers with and without renaming?

How many pencils do they have altogether?



$15 + 23 = 38$

They have 38 pencils altogether.

Can you solve word problems using bar models?

Year 3 Blue Knowledge Organiser: Multiplication & Division

1 group of 3
 $1 \times 3 = 3$

2 groups of 3
 $2 \times 3 = 6$

3 groups of 3
 $3 \times 3 = 9$

4 groups of 3
 $4 \times 3 = 12$

Do you know and understand the 3 times table?

1 group of 4
 $1 \times 4 = 4$

2 groups of 4
 $2 \times 4 = 8$

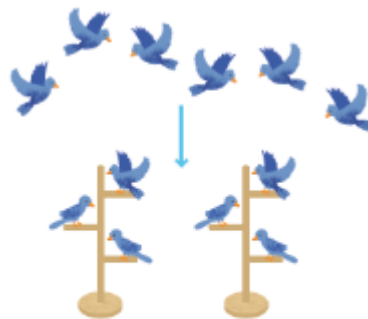
3 groups of 4
 $3 \times 4 = 12$

Do you know and understand the 4 times table?

1 x 4 = 4

1 x 8 = 8

Do you know and understand the 8 times table?
Can you recognise the pattern in the 4 and 8 times tables?



Can you use the 3 times table for dividing?

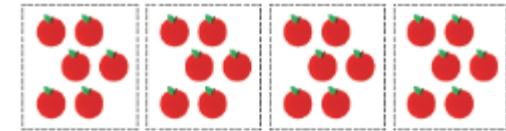
$6 \div 3 = 2$

$12 \div 4 = 3$

Can you use the 4 times table for dividing?

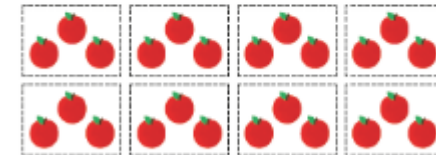
$20 \div 4 = 5$
 $5 \times 4 = 20$

Can you understand the relationship between multiplication and division?



$24 \div 4 = 6$
Each group has 6 apples.

Put 24 apples into 8 equal groups.



$24 \div 8 = 3$
Each group has 3 apples.

Can you divide by 4 and 8?

6

?

$6 \div 3 = 2$

has two £2 coins.

Can you solve problems involving multiplication and division?

Year 3 Blue Knowledge Organiser: Further Multiplication & Division

$$\begin{array}{r} \text{o} \\ 2 \\ \times 4 \\ \hline 8 \end{array}$$

	h	t	o
		2	3
x		2	8
	1	8	4

$$\begin{array}{r} \text{t} \quad \text{o} \\ 20 \\ \times 4 \\ \hline 80 \end{array}$$

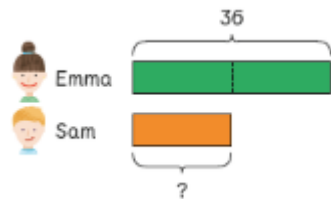
Can you multiply a 2-digit number by a 1-digit number with regrouping using short multiplication?

Can you multiply multiples of 10 by a 1-digit number?

$$\begin{array}{r} \text{t} \quad \text{o} \\ 23 \\ \times 2 \\ \hline 46 \end{array}$$

$$\begin{array}{r} \text{t} \quad \text{o} \\ 23 \\ \times 4 \\ \hline 92 \end{array}$$

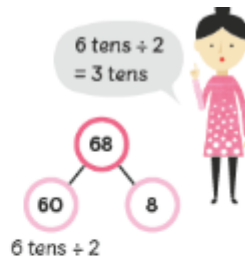
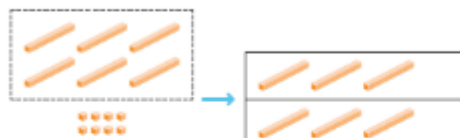
Can you multiply a 2-digit number by a 1-digit number with and without regrouping using expanded multiplication?



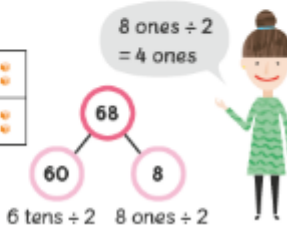
Can you solve word problems involving multiplication and division?

$$68 \div 2 = \square$$

Step 1 Divide 6 tens by 2.



Step 2 Divide 8 ones by 2.



Step 3 Add the results.

$$68 \div 2 = 30 + 4 = 34$$

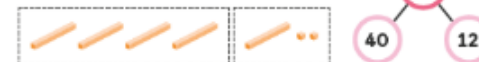
Can you divide a 2-digit number by a 1-digit number without regrouping?

$$\begin{array}{r} 12 \\ 8 \overline{) 96} \\ \underline{- 80} \\ 16 \\ \underline{- 16} \\ 0 \end{array}$$

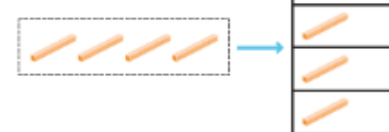
Can you divide a 2-digit number by a 1-digit number using division by chunking?

$$52 \div 4 = \square$$

Step 1 Split 52 into 40 and 12.



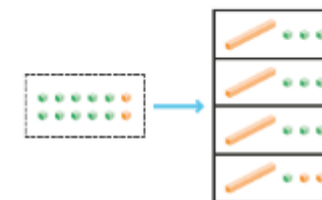
Step 2 Divide the tens by 4.



Step 3 Regroup 1 ten into 10 ones.



Step 4 Divide the ones by 4.

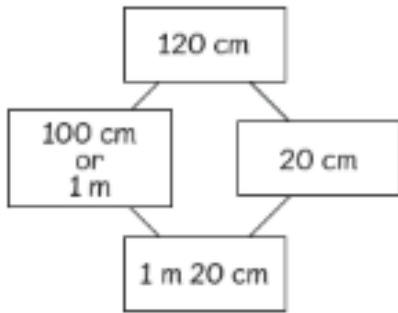


Step 5 Add the results.

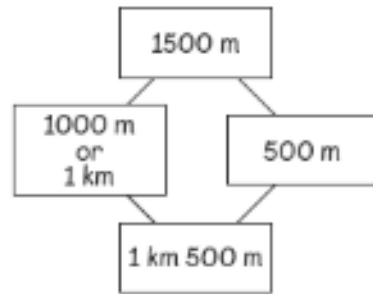
$$52 \div 4 = 10 + 3 = 13$$

Can you divide a 2-digit number by a 1-digit number with regrouping?

Year 3 Blue Knowledge Organiser: Length & Mass



Can you read and write length and height in metres and centimetres?



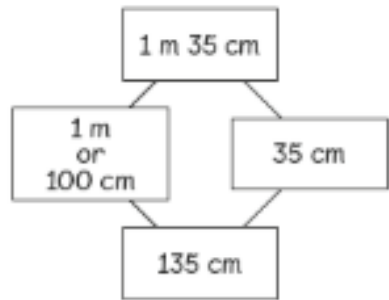
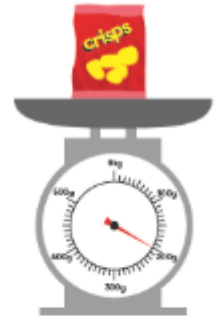
Can you read and write length in kilometres and metres?

Ruby
I ran 2 km 45 m.

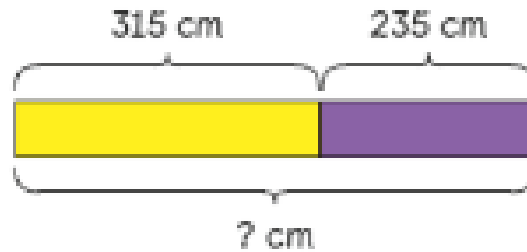
Amira
I ran 2450 m.

Who ran a longer distance?

Can I compare lengths?

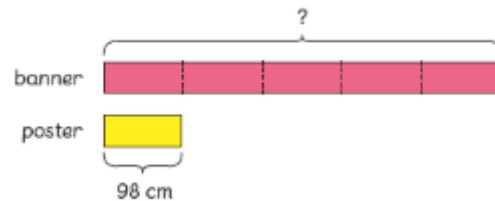


Can you read and write length and height in centimetres?

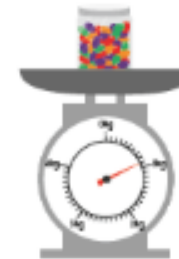


$$315 + 235 = 550$$

Can you solve word problems involving addition and subtraction of lengths?

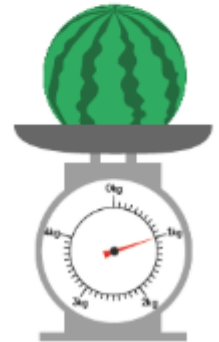


Can you solve word problems involving multiplication and division of lengths?

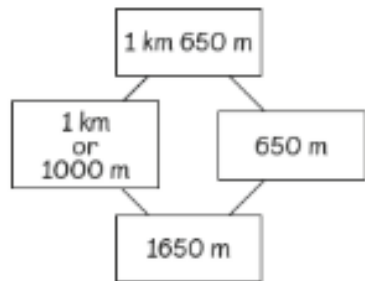


The mass of the empty jar is about 475 g. What is the mass of the jelly beans?

Can you solve word problems involving addition and subtraction of mass?



Can you read weighing scales to determine mass in grams or kilograms?



Can you read and write length in metres?

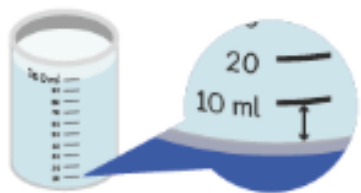
Elliott
27 kg

Sam
I am twice as heavy as Elliott.

What is the weight of Sam?

Can you solve word problems involving multiplication and division of mass?

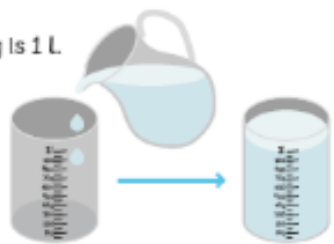
Year 3 Blue Knowledge Organiser: Volume



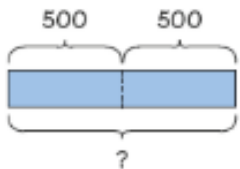
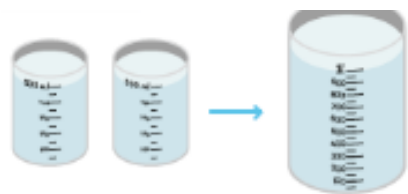
This beaker measures up to 100 millilitres. Each marking stands for 10 millilitres.

Can you measure volume in millilitres?

The volume of liquid in the jug is 1 L. We write ml for millilitres. We write l for litres.

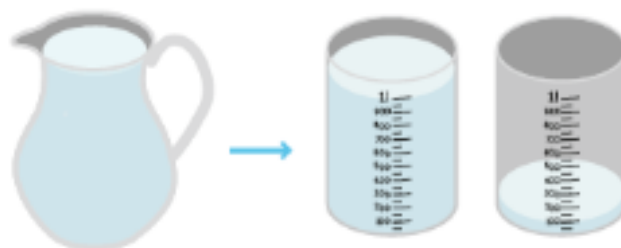


Can you measure volume in millilitres and litres?



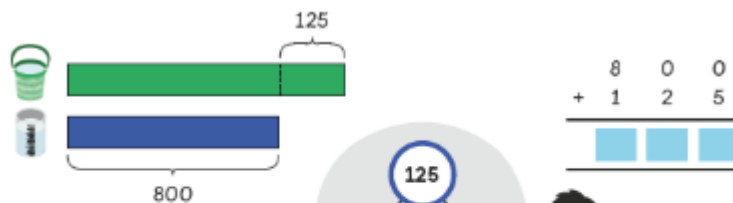
Can you add and subtract volume?

The jug is completely filled with water.



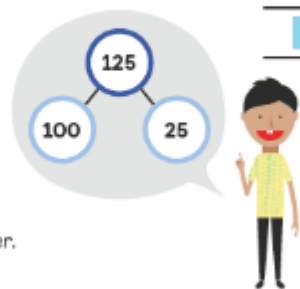
The capacity of the jug is **1 l** **100 ml**.

Can you read and write volume in litres and millilitres?



$$800 + 125 = 925$$

The bucket holds 925 ml of water.

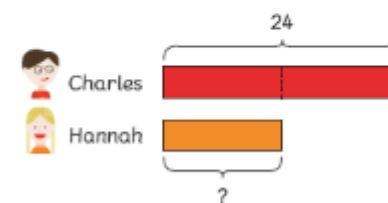


Can you solve word problems involving addition and subtraction of volume?



$$3 \times 8 = 24$$

Charles carries 24 l of water.

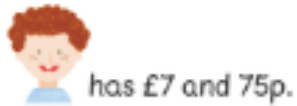


$$24 \div 2 = 12$$

Hannah carries 12 l of water.

Can you solve word problems involving multiplication and division of volume?

Year 3 Blue Knowledge Organiser: Money



Can I add money by counting on?



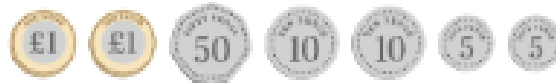
£1 19p

Can I add pence to make one pound?

This is one way to pay £2 and 80p.

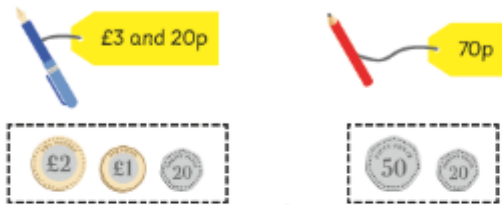


This is another way to pay £2 and 80p.



Can you add different combinations of coins to make an amount?

How much do  and  cost?



Can you add pounds and pence with and without renaming?

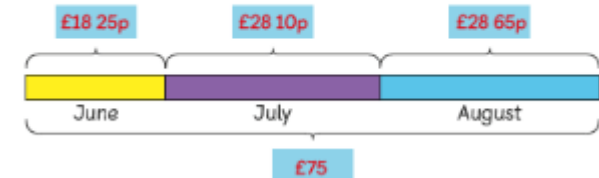
What is 40p less than £8 and 30p?



40p less than £8 and 30p is £7 and 90p.

Can you subtract pounds and pence with and without renaming?

Hannah saved a total of £75 in June, July and August. She saved £18 and 25p in June and £28 and 65p in August. How much did she save in July?



Can you use knowledge of money to solve problems?

Year 3 Blue Knowledge Organiser: Time

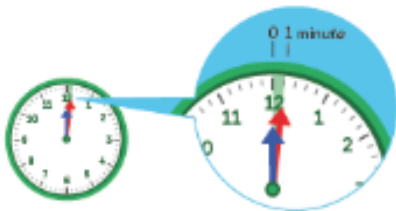


10:20 a.m.



7:10 p.m.

Can you tell the time using AM and PM?



Can you tell the time to the nearest minute?

1 min = 60 s

Can you convert minutes into seconds and seconds into minutes?



It is 1:30 p.m.
It is 1:30 in the afternoon.



It is half past one in the afternoon.



It is 30 minutes past one in the afternoon.

Charles arrives in school at  every school day.

Can you tell time to the minute using vocabulary, such as o'clock, AM/PM., morning, afternoon, past and half past?



It shows 8 o'clock at night.
We write it as 8:00 p.m.



It shows 13 minutes past 8 at night.
We write it as 8:13 p.m.

Can you tell time using both analogue and digital?

Tell the time shown.

Write it.

Say it.

08:20

8:20 a.m.

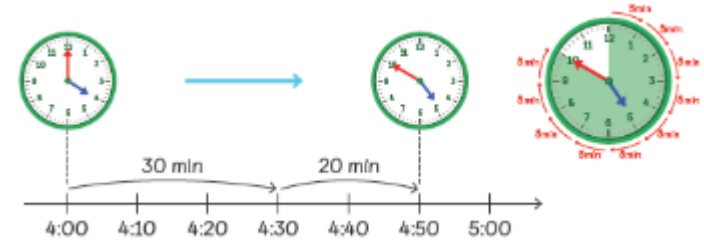
20 minutes past 8
in the morning

Can you tell the time using 12 and 24-hour clock?



The time taken is more than **5** seconds but less than **6** seconds.

Can you measure and compare time in seconds?



Can you calculate time durations in minutes and hours?

There are 30 days in some months.

April	June	September	November
M T W T F S S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	M T W T F S S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	M T W T F S S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	M T W T F S S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30

There are 31 days in other months.

January	March	May	July
M T W T F S S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	M T W T F S S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	M T W T F S S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	M T W T F S S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

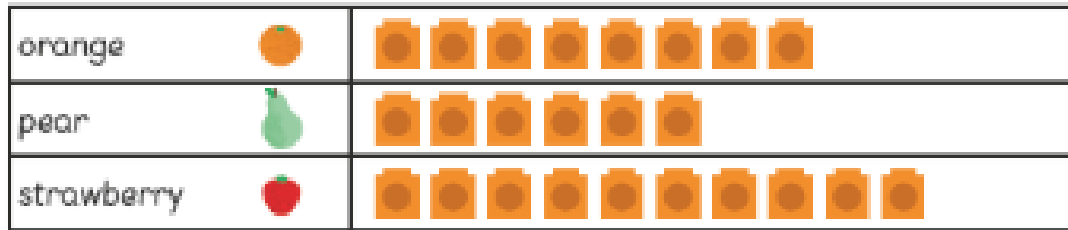
August	October	December
M T W T F S S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	M T W T F S S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	M T W T F S S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

Can you find the number of days in each month, year and leap year?

In February, there are 28 days or 29 days.

Year 3 Blue Knowledge Organiser: Picture Graphs & Bar Graphs

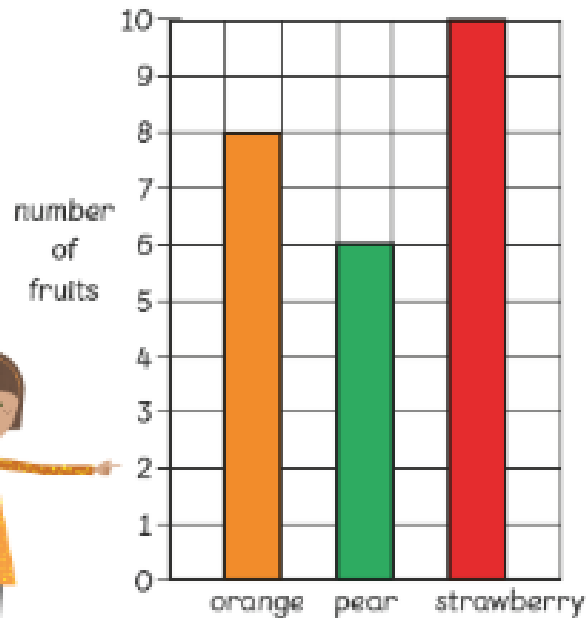
Number of Fruits in the Baskets



Each  stands for 1 fruit.

Can you present data using picture graphs?

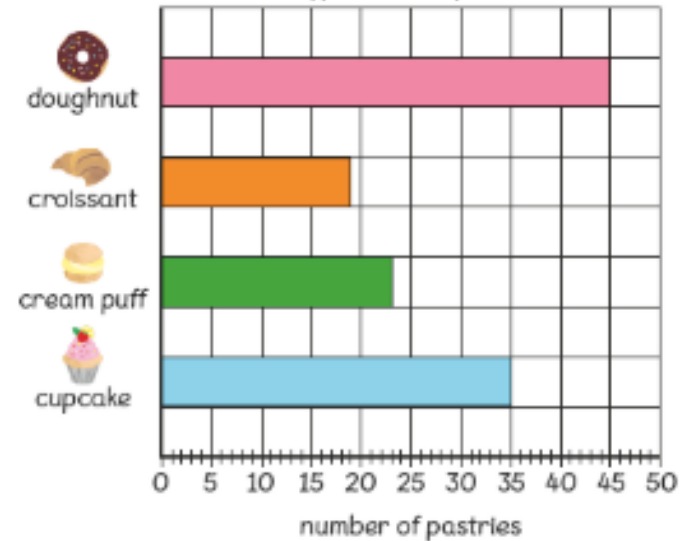
Fruits in the Baskets



This is a scale.

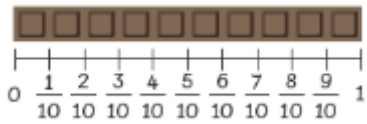
Can you interpret and present data using bar charts?

Type of Pastry Sold

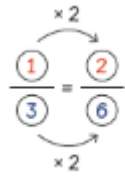


Can you interpret and present data using scaled bar charts?

Year 3 Blue Knowledge Organiser: Fractions



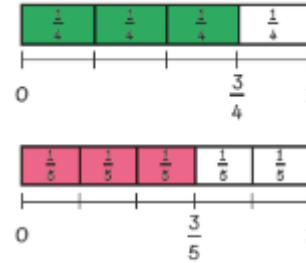
Can you count in tenths?



Can you find equivalent fractions?



Can you compare fractions with the same denominator?



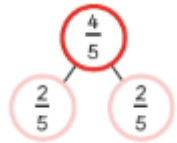
$\frac{3}{4}$ is greater than $\frac{3}{5}$.

Can you compare fractions with different denominators?

$$\frac{1}{2} \text{ of } 6 = 6 \div 2 = 3$$

$$\frac{1}{2} \text{ of } 6 \text{ is equal to } 3.$$

Can you find the fraction of a number and relate fractions to division?



Can you add fractions with the same denominator?



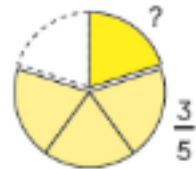
$$4 \text{ pieces} = \frac{4}{12}$$



$$1 \text{ piece} = \frac{1}{3}$$

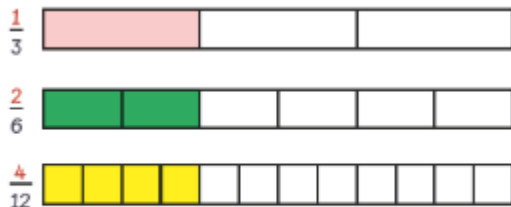
$$\frac{4}{12} = \frac{1}{3}$$

Ravi takes $\frac{1}{3}$ of the cake.



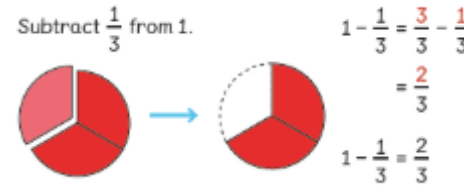
$$\frac{4}{5} - \frac{3}{5} = \frac{1}{5}$$

Can you subtract fractions with the same denominator?



$$\frac{1}{3} = \frac{2}{6} = \frac{4}{12}$$

Can you recognise and show equivalent fractions?

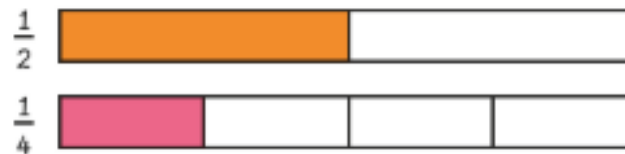


Subtract $\frac{1}{3}$ from 1.

$$1 - \frac{1}{3} = \frac{3}{3} - \frac{1}{3} = \frac{2}{3}$$

$$1 - \frac{1}{3} = \frac{2}{3}$$

Can you subtract a fraction from 1 whole?



$\frac{1}{2}$ is greater than $\frac{1}{4}$.

Can you compare unit fractions?

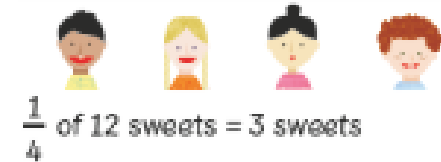
Elliott spent $\frac{1}{3}$ of the month drawing.

After that, he spent the rest of the month painting his drawing.

He took 30 days to complete the drawing and painting.

How many days is $\frac{1}{3}$ of 30 days?

Can you solve word problems involving fractions?

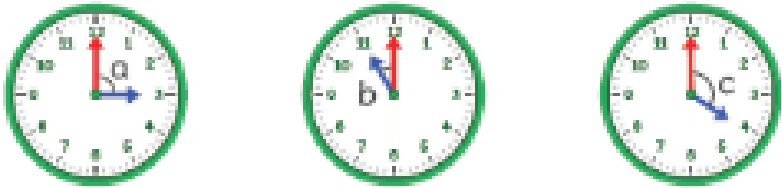


$$\frac{1}{4} \text{ of } 12 \text{ sweets} = 3 \text{ sweets}$$

Can you recognise, find and write fractions of a discrete set of objects?

Year 3 Blue Knowledge Organiser: Angles

The hour and minute hands make different angles at different times.



Can you recognise angles as a description of a turn?

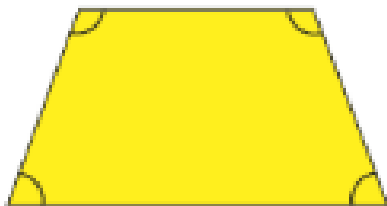
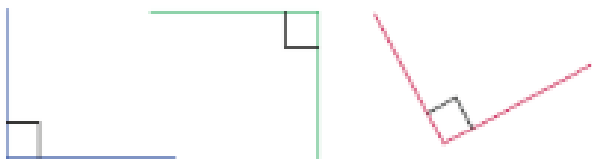


Figure A

Figure A has 4 sides.

Figure A has 4 angles.

Can you recognise angles as a property of a shape?



Can you identify right angles?



Angles a, b and c are less than a right angle.

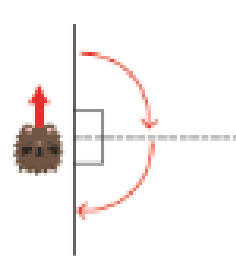
We call these acute angles.

Can you identify an acute angle as a smaller angle than a right angle?

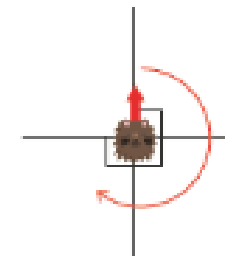


These are larger than a right angle. We call them obtuse angles.

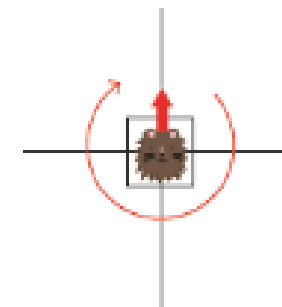
Can you identify an obtuse angle as a greater angle than a right angle?



This is a half turn.



This is three-quarters of a turn.

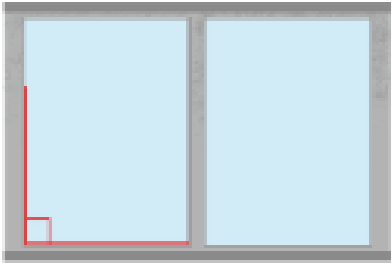


This is a full turn.

Can you identify right angles and recognise that two right angles make a half-turn, three make three-quarters of a turn and four a complete turn?

Year 3 Blue Knowledge Organiser: Lines & Shapes

1 Find two lines that meet at right angles.



Two straight lines that meet at a right angle are called perpendicular lines.

Can you identify perpendicular lines?



AB and CD do not meet at a point. They do not make an angle. They are parallel lines. Parallel lines do not meet, no matter how long they are drawn.

Can you identify parallel lines?

What can you say about line AD and line BC?



Vertical lines are perpendicular to the floor. Vertical lines are parallel to each other.

They are vertical lines.



What can you say about line AB and line DC?



Horizontal lines are parallel to the floor.

They are horizontal lines.

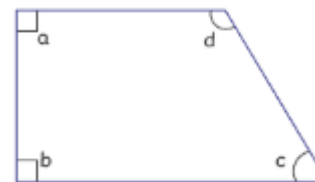


Can you identify horizontal and vertical lines?



There are 4 angles.

Let's use letters to name angles.



Are angles c and d acute or obtuse? Are they smaller than or larger than a right angle?

Angles a and b are right angles.



How many vertices does the shape have?

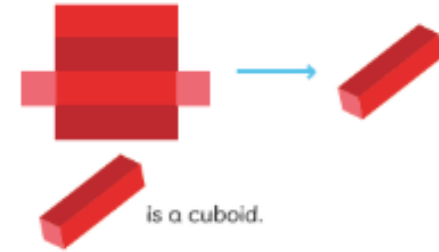
I can check using a right-angle tester.



Can you describe a 2-D shape using angle and side properties?

Can you draw 2-D shapes?

What shape do you get?



is a cuboid.

Can you make 3-D shapes?

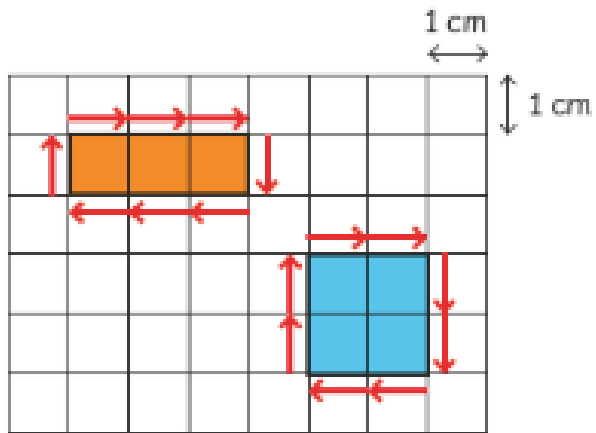
How many edges does a cuboid have?



A cuboid has 12 edges.

Can you describe 3-D shapes?

Year 3 Blue Knowledge Organiser: Perimeter of Figures



Can you measure the perimeter of 2-D shapes?

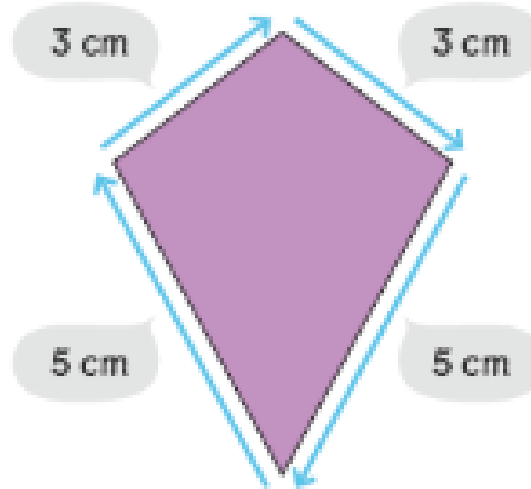
A rectangular carpet is used to cover the floor of the room.

The carpet has a length of 19 m and a width of 8 m.

What is the perimeter of the carpet?



Can you solve problems on perimeter?



$$\begin{aligned} \text{Perimeter} &= 5 \text{ cm} + 3 \text{ cm} + 3 \text{ cm} + 5 \text{ cm} \\ &= 16 \text{ cm} \end{aligned}$$