Multiplication

By this time children should confidently and quickly be able to recall all of their tables and the inverses up to and including 12 x 12.

Children will use their previous knowledge of multiplication to multiply 4 digits by 1 digit.

TH	H	T	O
1	0	2	3
×			3

TH	H	T	O
1	3	2	5
×			4

Megan worked out the answer to
1,432 × 4

Here is her answer:

TH	H	T	O
1	4	3	2
×			4
4	16	12	8

1,432 × 4 = 416,128

Can you explain what Megan has done wrong?

Measures- Volume

- Estimate volume [for example using 1cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]
- Use all four operations to solve problems involving measure.

Lola wants to run **two kilometres**.

A lap of the school field is **400 metres**.

How many laps must she run?

Convert these measurements.

402 cm	=		m
1.5 km	=		m
83 mm	=		cm
6.2 km	=		m
2.05 litres	=		ml

Sophia and Riley both threw a javelin.
Sophia threw it 608 centimetres.
Riley threw it 5.72 metres.

How much further did Sophia throw the javelin than Riley?

A beaker holds 250ml of water.

A bucket holds 3 litres of water.

How many beakers of water are needed to fill an empty bucket?

Number: Decimals

- Solve problems involving number up to three decimal places.
- Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
- Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.

Use the place value chart to help answer the following:

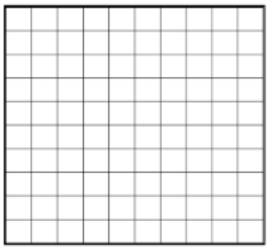
Ones	Tenths	Hundredths	Thousandths
	0.1 0.1 0.1 0.1	0.01	0.001 0.001

- What is one hundredth more?
- Add 0.3 , what number do you have now?
- How many thousandths can I add before the hundredths digit changes?

Using blank hundred squares, where each box represents one hundredth of the whole, shade and add:

0.07 + 0.78

0.87 + 0.07



Compare the numbers sentences using <, > or =

0.7 + 0.03 + 0.001 ◯ 0.07 + 0.3 + 0.1

0.4 + 0.1 + 0.05 ◯ 0.3 + 0.2 + 0.05

Use the column method to complete the additions.

0.45 + 0.5

0.45 + 0.05

0.45 + 0.005

A place value grid is used to solve

0.7 + 0.5

Ones	Tenths
	0.1 0.1 0.1 0.1 0.1 0.1 0.1
	0.1 0.1 0.1 0.1 0.1

Jasmine thinks the answer is 0.12
What mistake has she made?

Order the subtractions from easiest to solve to trickiest to solve.
Explain your choice of order.

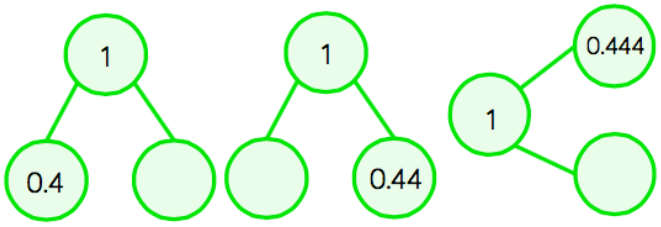
0.45 – 0.3 =
0.45 – 0.15 =
0.45 – 0.23 =
0.45 – 0.18 =

Calculate.

0.584 – 0.154 =
0.684 – 0.254 =
0.685 – 0.255 =

0.44 – 0.1 =
0.44 – 0.09 =
0.44 – 0.11 =

Complete the part-whole models.



Use column method to solve the additions.

0.47 + 0.6

0.982 + 0.18

0.92 + 0.8

Beth goes to the shops. She buys 3 items. What is the most she could pay? What is the least?


£4.45


£5.59


£3.99


£4.05

Billy has £12.54 in his wallet.
He buys a football which costs £5.82

How much money does he have left?

Number: Decimals continued…

Joe and Rachel have some money.
Joe has £3.45 more than Rachel.

They have £12.45 altogether.

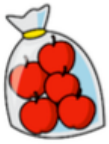
How much money does Rachel have?

Joe 

Rachel 

Sally is cycling in a race.
She has cycled 3.145 km so far and has 4.1 km left to go.
What is the total distance of the race?

How much change would I get from £10 if I bought a bag of apples costing £4.27?



Can you find the missing numbers in the calculation?

$$\begin{array}{r} 31.\square0 \\ -\ \square.37 \\ \hline 29.63 \end{array}$$

Choose the most efficient method to solve this calculations.

43 – 2.14 + 0.86 =	19 – 0.25 =
23 + 4.105 =	19 – 17.37 =

Fill in the missing numbers in these calculations.

34.2 ÷ ☐ = 0.342 ☐ ÷ 10 = 54.1

☐ ÷ 10 = 1.93 ÷ 100

Generate the first 5 terms of this sequence.

The 1st term is 1.74
The sequence decreases by 0.24 each time.

Multiplying by 1,000 is just the same as doing 10 × 10 × 10

Complete the table below.

	× 10	× 100	× 1,000
3.14			
0.233			
		404	

Do you agree with Stefan?
Explain your answer

Geometry- Properties of Shapes and Angles

- Identify 3D shapes, including cubes and other cuboids, from 2D representations.
- Use the properties of rectangles to deduce related facts and find missing lengths and angles.
- Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
- Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.
- Draw given angles, and measure them in degrees (°)
- Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and 1⁄2 a turn (total 180°) other multiples of 90°

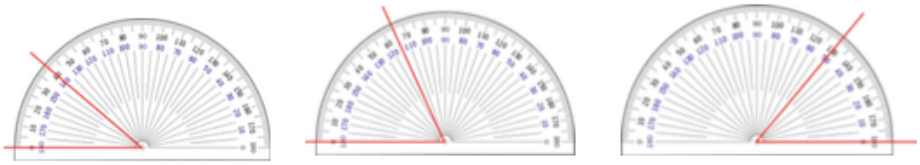
Use the sentence stem to describe the turns made by the minute hand. Compare the turn to a right angle.

The turn from 12 to 4 is larger than a right angle. It is an obtuse angle.

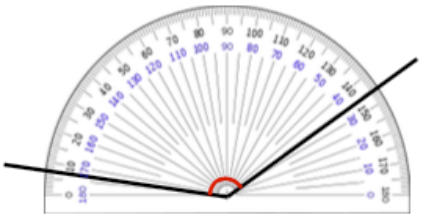
The turn from ___ to ___ is _____ than a right angle. It is an _____ angle.

Estimate the size of the angles and then use a protractor to measure them to the nearest degree.

Read the angles shown on the protractor.



Tamira is measuring an obtuse angle.
What's her mistake?



Draw:

- an angle that measures 45°
- an acute angle and an obtuse angle that is a multiple of 3 and 5
- an obtuse angle that has a factor of 4 and 6

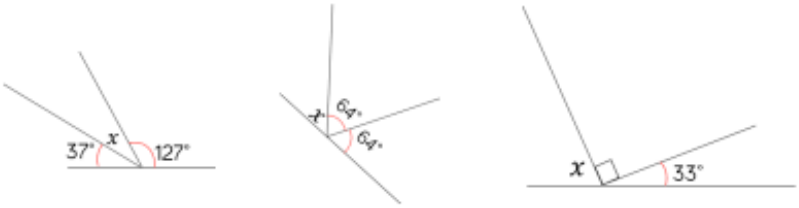
Draw:

- an acute angle that measures 56° with one line that measures 5.6 cm
- an obtuse angle that measures more than 130° but less than 140° with a line that measures 6.7 cm
- an obtuse angle that is equivalent to two 36° angles and with a line that has 49 mm

Calculate the missing angles.

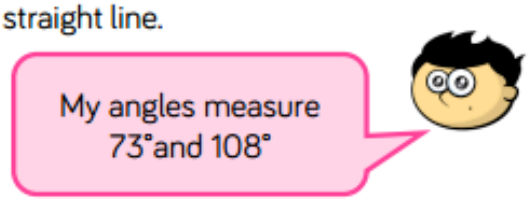
Geometry- Properties of Shapes and Angles continued…

Calculate the missing angles.



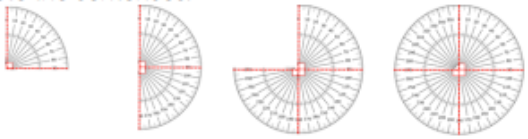
Can you find more than one way to calculate the missing angles?

Bradley is measuring two angles on a straight line.



Explain why Bradley's angles must be wrong.

Complete the sentences.



$\frac{1}{4}$ of a turn = 1 right angle = 90°

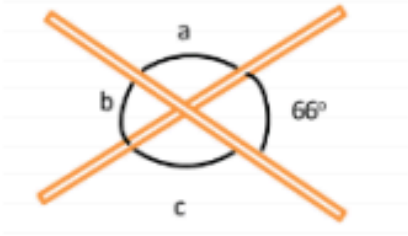
$\frac{1}{2}$ of a turn = __ right angles = ____°

— of a turn = 3 right angles = ____°

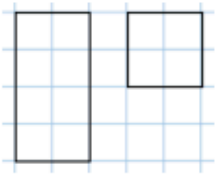
A full turn = __ right angles = ____

Calculate the missing angles.

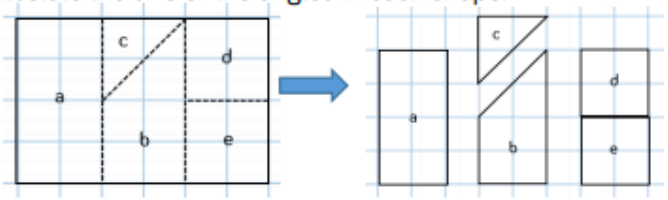
Two match sticks are on a table. Without measuring, find the three missing angles.



Look at the square and the rectangle. What's the same? What's different?

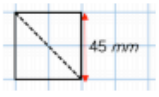


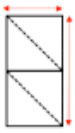
Calculate the size of the angles in each shape.



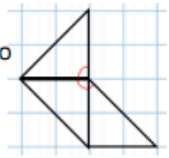
What's the same? What's different?

Here is a square.





Use the square to calculate the missing lengths.



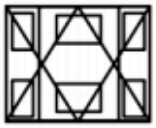
Use the square to calculate the missing angles.

Sort the shapes in to irregular and regular polygons.

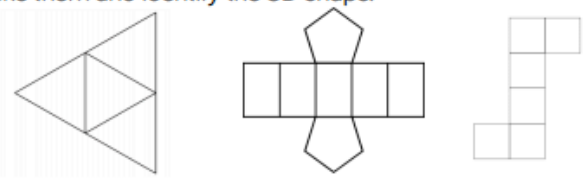
What's the same? What's different?

Geometry- Properties of Shapes and Angles continued 2 …

How many regular and irregular polygons can you find in this picture?



Look at the different nets. Describe the2D shapes used to make them and identify the 3D shape.



Use equipment, such as Polydron, or 2D shapes to build the 3D solids being described.

- My faces are made up of a square and four triangles.
- My faces are made up of rectangles and triangles.

Can the descriptions make more than one shape?

Create cubes and cuboids by using multilink.
Can you draw these on isometric paper?
Which part is difficult?
Would it be harder if you had to draw something other than squares or rectangles?

Albie says,

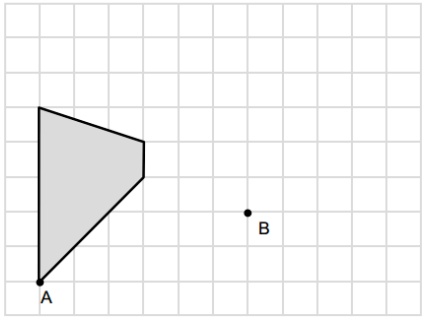
If two 3D shapes have the same number of edges, then they also have the same number of vertices.

Do you agree?
Explain why.

Geometry- position and direction

- Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

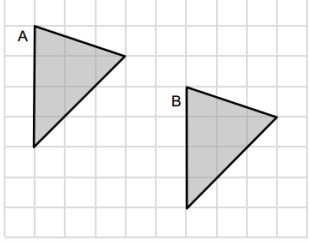
Here is a quadrilateral on a square grid.



The quadrilateral is translated so that point A moves to point B

Draw the quadrilateral in its new position. Use a ruler.

A triangle is translated from position A to position B.

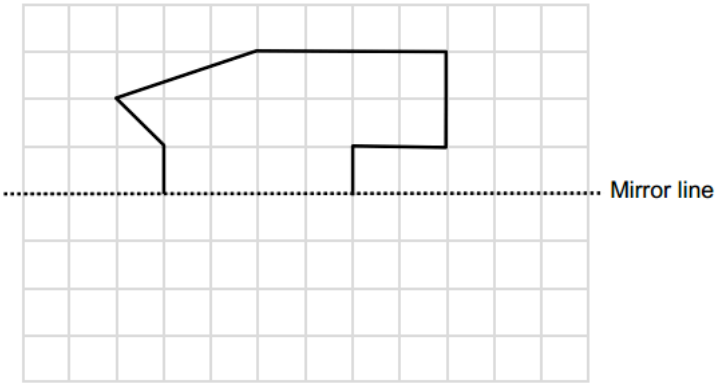


Complete the sentence to describe the translation.

The triangle has moved ____ spaces right and ____ spaces down.

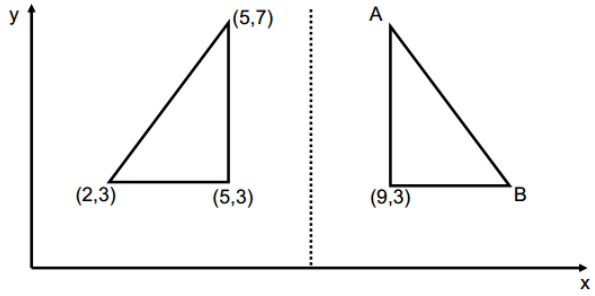
Complete the diagram below to make a shape that is symmetrical about the mirror line.

Use a ruler.



Geometry- position and direction continued...

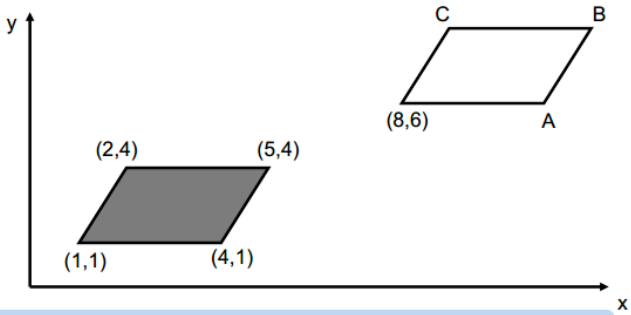
A triangle is reflected in a mirror line.



Write the coordinates of the points A and B.

A = (,) B = (,)

A parallelogram has been translated on a coordinate grid.



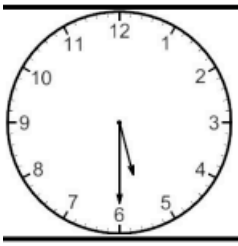
Write the coordinates of the points A, B and C.

A = (,) B = (,) C = (,)

Measurement- converting units

- Convert between different units of metric measure [for example, km and m; cm and m; cm and mm; g and kg; l and ml]
- Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
- Solve problems involving converting between units of time.

10mm = 1 cm, 100cm =1m, 1000m = 1 km
1000ml = 1 litre
1000g = 1 kg



This was the time that Trinity went to the park.

She got home **120 minutes later**.

What was the time when she got home?

:

It takes Riley a **quarter of an hour** to walk to school.

He leaves home at **8:30**.

When does he get to school?

:

It takes **240 seconds** to cook a soft boiled egg.

How many **minutes** does it take?

minutes

It is **3 weeks** until Sophia's birthday.

How many **days** until her birthday?

days

Skye, Archie and Lucas ran 10 laps of the school field.

Skye took **10 minutes**.

Archie finished **half a minute** behind Skye.

Lucas was a **minute slower** than Archie.

How many seconds did each child take?

Skye:_____ seconds

Archie:_____ seconds

Lucas:_____ seconds

Monty has a little brother and a little sister.

His little sister is **18 months old**.

His brother is **twice as old** as his sister.

How many years old is his brother?

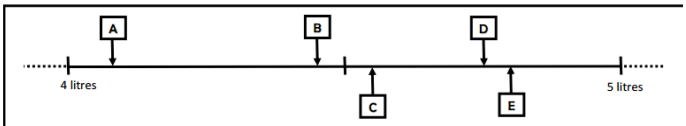
Measures Volume

- Estimate volume [for example using 1cm 3 blocks to build cuboids (including cubes)] and capacity [for example, using water]
- Use all four operations to solve problems involving measure.

A beaker holds 250ml of water.

How many beakers of water are needed to fill an empty bucket?

A bucket holds 3 litres of water.



Match each capacity with one of the measures below.

$4\frac{3}{4}$ *l* ☐ 4.55 *l* ☐ 4450 ml ☐ 4080 ml ☐ 4.8 *l* ☐

Convert these measurements.

402 cm	=	m
1.5 km	=	m
83 mm	=	cm
6.2 km	=	m
2.05 litres	=	ml

A kilogram is approximately **2.2 pounds**.

Samuel's sister weighed **3 kg** when she was born.

How much did she weigh in pounds?

pounds

This rectangle has a perimeter of 18 cm. The length of the rectangle is 6.5 cm.

Not to scale

Calculate the height of the rectangle.

cm

Monty is trying to work out how many **hours** there are in **three weeks**.

Tick the correct calculation to use.

- 12 x 7 x 3
- 24 x 3
- 24 x 7 x 3
- 24 x 7

Convert these units of time.

2 days	=	hours
a fortnight	=	days
5 weeks	=	days
4 hours	=	minutes

These are some websites that could help your child:

Mixed Practice
http://www.mathstest.org/

Addition
https://www.topmarks.co.uk/Flash.aspx?f=bingoaddition

Subtraction
https://www.topmarks.co.uk/maths-games/subtraction-grids

Timetables and number bonds- Hit the Button
https://www.topmarks.co.uk/maths-games/hit-the-button

Timetables- Shooting bubbles
http://www.mad4maths.com/4_x_multiplication_table_math_game/

Timetables- Fishy timetables
http://www.what2learn.com/home/examgames/maths/subtraction/

Place Value- Place value chart
https://www.topmarks.co.uk/

Recognising numbers- Blast off
https://www.topmarks.co.uk/learning-to-count/blast-off

TimesTable RockStars
https://ttrockstars.com