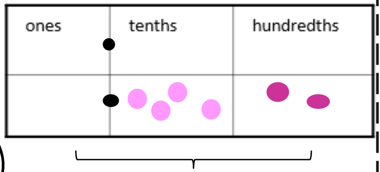
Knowledge Organiser	Subject	Year	Term	KO n.o.	Title
	Mathematics	7	1	1A	Ch 1 Whole Number and Decimals

Decimals



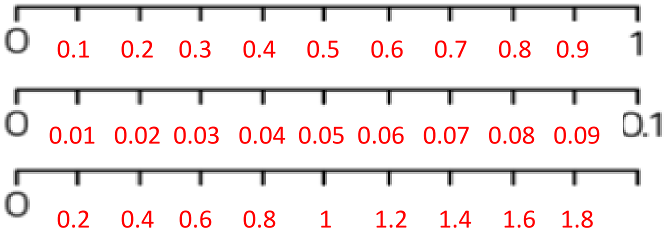
We say
“nought point five two”

Five tenths and two hundredths

0 ones, 5 tenth and 2 hundredths
0 + 0.1 + 0.1 + 0.1 + 0.1 + 0.1 + 0.01 + 0.01
= 0 + 0.5 + 0.02
= **0.52**

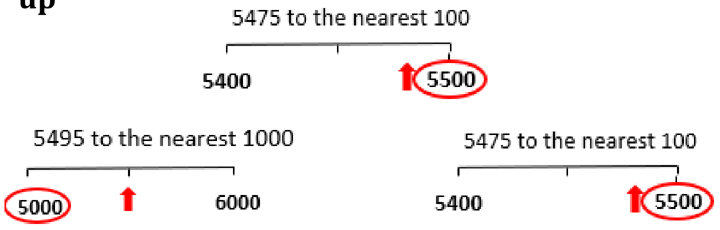
Decimal intervals on a number line

One whole spit into 10 parts makes tenths = 0.1
One tenth split into 10 parts makes hundredths = 0.01



Rounding to the nearest power of ten

If the number is halfway between we “**round up**”

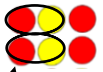


Add directed numbers

Representation

🔴 = −1
🟡 = 1

2 + - 4 = -2



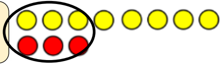
Zero pair
(-1 + 1 = 0)

Two “ – 1 “ left
=2

Generalisation

+ - = -

8 + -3 = 5



Partitioning

8 + -3 = 5

5 + 3 + - 3 = 5

Partition the value to create a zero pair calculation

Subtract directed numbers

“Subtract” – means take away or <u>remove</u>

2 - - 1 =   2 - -1 = 2 + 1 = 3

2 - - 3 =   2 - -3 = 2 + 3 = 5

- - = +

Multiples

The “times table” of a given number
All the numbers in this list below are multiples of 3.

3, 6, 9, 12, 15…

This list continues and doesn’t end

$3x$. $6x$. $9x$ …

x could take any value and as the variable is a multiple of 3 the answer will also be a multiple of 3

Factors

Arrays can help represent factors

5 x 2 or 2 x 5

Factors of 10
1, 2, 5, 10

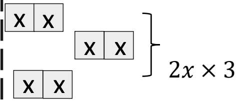
10 x 1 or 1 x 10

The number itself is always a factor

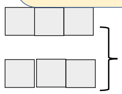
Factors and expressions

x x x x x x

$6x \times 1$ OR $6 \times x$



$2x \times 3$



$3x \times 2$

Factors of $6x$
6, x, 1, $6x$, $2x$, 3, $3x$, 2

Rounding Decimals

Rounding decimals places is exactly like rounding whole numbers – you just have more numbers (and therefore greater accuracy.

x   x

3 is the units digit.

2 is worth 2 tenths, and is the first decimal place.

4 is worth 4 hundredths, and is the second decimal place.

8 is worth 8 thousandths, and is the third decimal place.

3.248 rounded to 1 d.p.

3.248   3.2|48 → 3.2

1st dp
3.2

Look at the next digit.
4 stays down - stay at 3.2.

3248 rounded to 2 d.p.

3.248   3.24|8 → 3.25

2nd dp
3.24

Look at the next digit.
8 rounds up - go to 3.25

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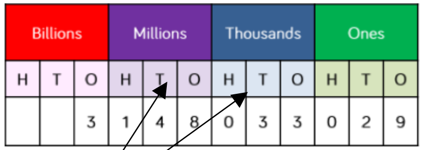
Integer Place Value



Billions			Millions			Thousands			Ones		
H	T	O	H	T	O	H	T	O	H	T	O
		3	1	4	8	0	3	3	0	2	9

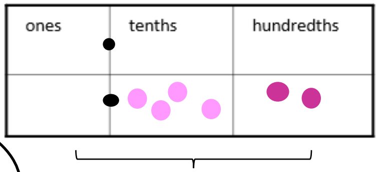
Placeholder

Three billion, one hundred and forty eight million, thirty three thousand and twenty nine

1 billion 1, 000, 000, 000

1 million 1. 000, 000

Decimals



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Five tenths and two hundredths

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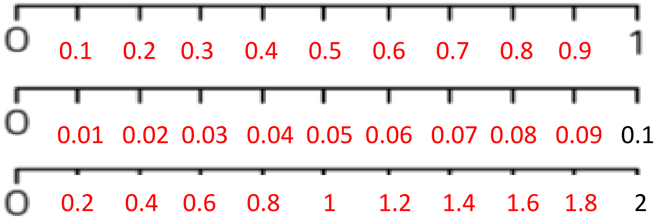
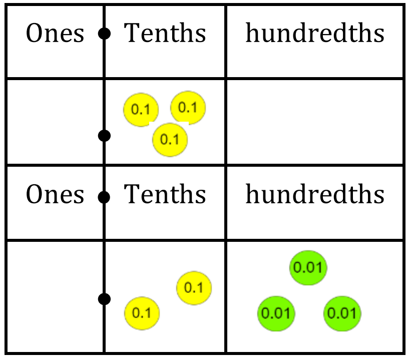


Comparing decimals

Which the largest of 0.3 and 0.23?

0.3 > 0.23



Ones	Tenths	hundredths
	0.1 0.1 0.1	

Ones	Tenths	hundredths
	0.1 0.1	0.01 0.01 0.01

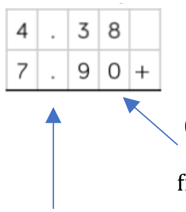
There are more counters in the furthest Column to the left.

0.3

0.23

Comparing the values both with the same number of decimal places is another way to compare the number of tenths and hundredths

Addition or subtraction with decimals



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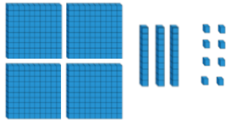
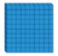


If  represents 1 instead of 100

Revisit Fraction – Decimal equivalence

5.43 + 0.8

$5.43 + \frac{8}{10}$

Subtracted directed numbers

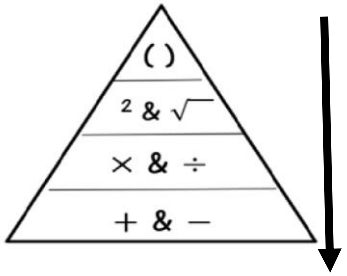
"Subtract" – means take a way or remove

- - = +

2 - -1 = 2 + 1 = 3

2 - -3 = 2 + 3 = 5

Order of Operations



Brackets

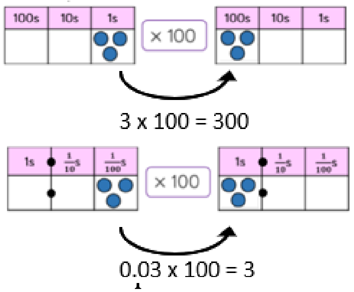
Indices and roots

Multiplication and division

Addition and subtraction

Remember square roots have a positive and negative value

Multiply/ Divide by powers of 10



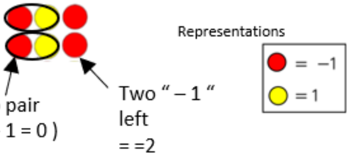
3 x 100 = 300

0.03 x 100 = 3

Repe ision by powers of 10 is commutative

Add directed numbers

2 + - 4 = -2



8 + -3 = 5

Partitioning

8 + -3 = 5

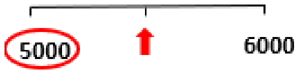
5 + 3 + - 3 = 5

Partition the value to create a zero pair

Rounding to the nearest power of ten

If the number is halfway between we "**round up**"

5495 to the nearest 1000



5475 to the nearest 100

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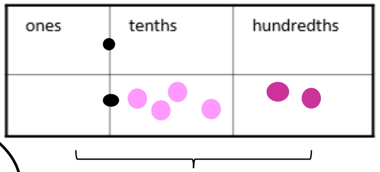

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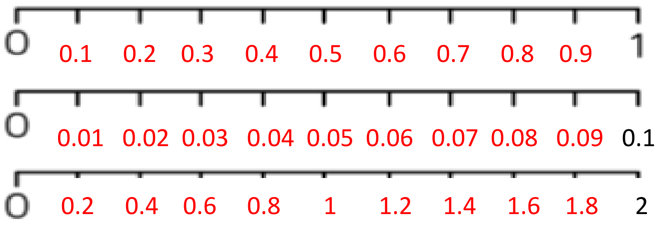

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0.3 > 0.23

Ones	Tenths	hundredths
	0.1 0.1 0.1	
Ones	**Tenths**	**hundredths**
	0.1 0.1	0.01 0.01 0.01

There are more counters in the furthest Column to the left.

0.3
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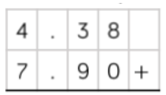

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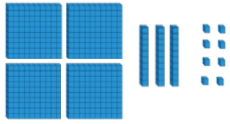
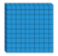


If  represents 1 instead of 100

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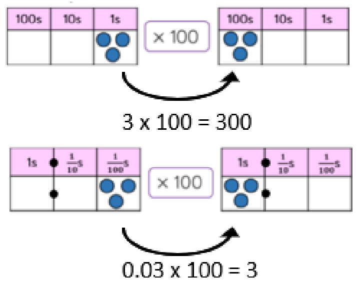
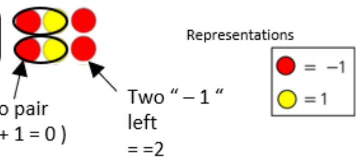
Multiply/ Divide by powers of 10



Repeated multiplication and division by powers of 10 is commutative

Add directed numbers

2 + - 4 = -2



8 + -3 = 5

Partitioning

8 + -3 = 5

5 + 3 + - 3 = 5

Partition the value to create a zero pair

Multiplying and dividing directed numbers

-3	-3

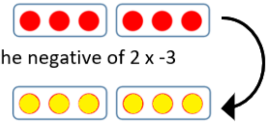
Both of these represents the same

calculation.

2 x -3 = -6

Negative, Negative calculation

-2 x -3



-2 x -3 = 6

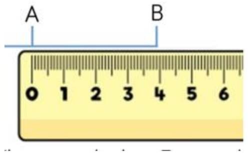
Divisions are the inverse operations. The act of making counters into their negative is turning them over

Knowledge Organiser

Subject	Year	Term	KO n.o.	Title
Mathematics	7	1	2A	Ch 2 Measure. Perimeter and Area

Draw and measure line segments

Conversions 1cm = 10mm, 1m = 100cm

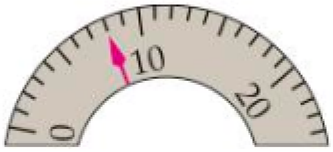


The line segment is 3.9cm
Which is 39mm

AB is a line segment
(part of the line)

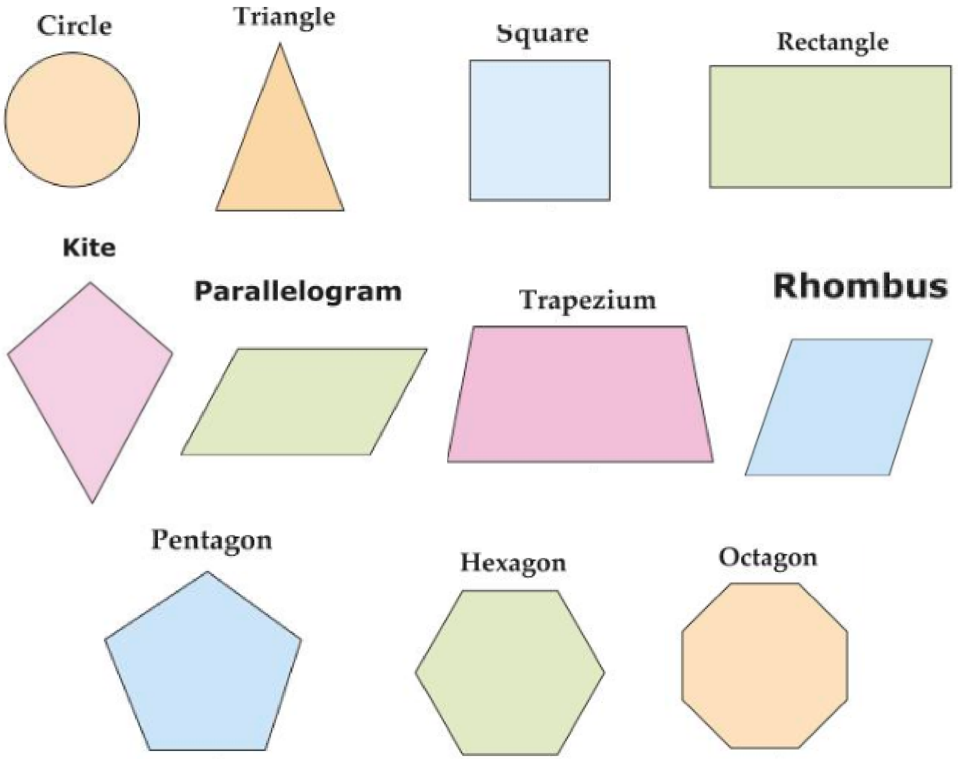
Make sure the start of the line is at 0;

Reading Scales



The scale shows 8 units

Know the names of and Identify 2D shapes



Know the conversions for units of time

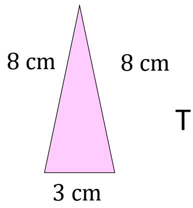
There are 60 **seconds** in a minute.
There are 60 **minutes** in an hour.
There are 24 **hours** in a day.
There are 7 **days** in a week.
There are 52 **weeks** in a year.
There are 12 **months** in a year.
There are 365 **days** in a year
(and 366 in a leap year).

Time (12 & 24 hour)

The clock shows
9.45pm or **21.45**

Solve problems with perimeter

Perimeter is the length around the outside of a polygon

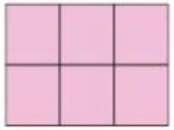


The triangle has a perimeter of

8cm + 8cm + 3cm = 19cm

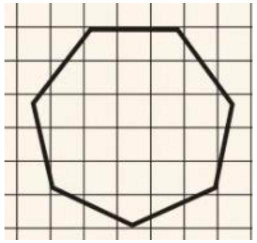
Area

Area is the space inside a 2D shape



This shape is made of 6 squares.
Each square is 1 cm wide.
Its area is 6 cm^2.

Estimating the area of a 50p coin, it is about 21 whole squares and 9 part squares which will be about 5 more whole square. 21 + 5 = 26 squares.



Knowledge Organiser

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Mathematics	7	1	2B	Ch 2 Measure. Perimeter and Area

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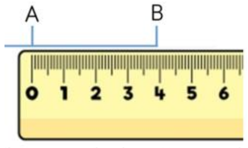

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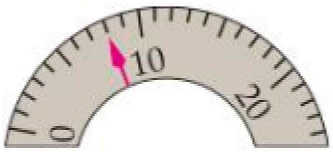

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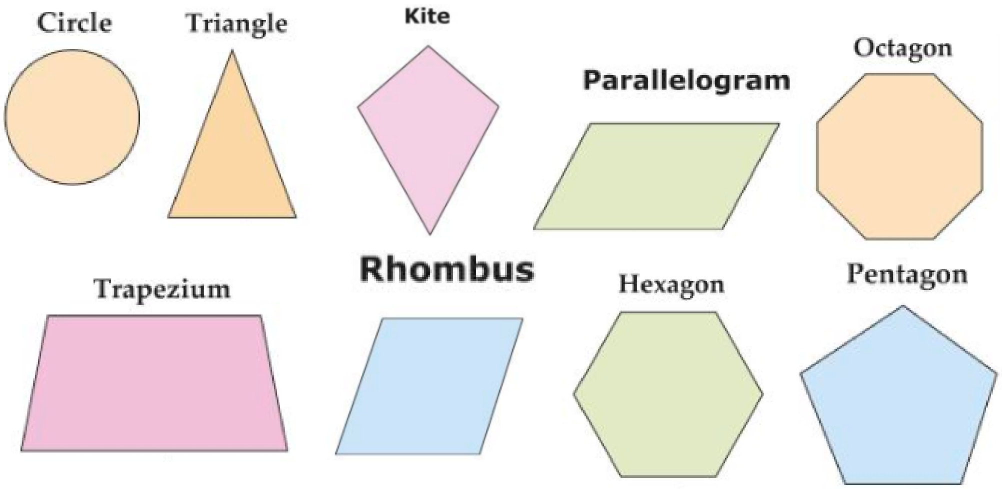
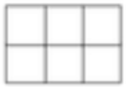
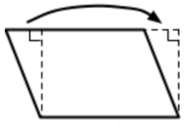


Area of Rectangles, Triangles and Parallelograms



Area = base x height



Area = base x perpendicular height

Area = ½ x base x height

Convert between Different Metric Units

1 cm	10 mm
1 m	100 cm
1 km	1000 m

My pen is 13cm long.
This is 13 x 10 = 130mm long.

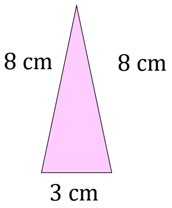
Area and Perimeter

The area of this rectangle is 5 x 15 = 75 mm^2.

The perimeter of this rectangle id 5 + 15 + 5 + 15 = 40 mm

Solve problems with perimeter

Perimeter is the length around the outside of a polygon



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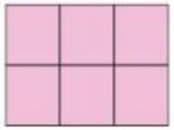

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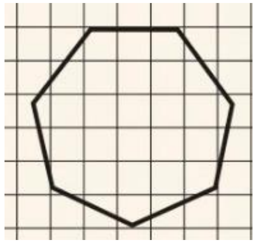
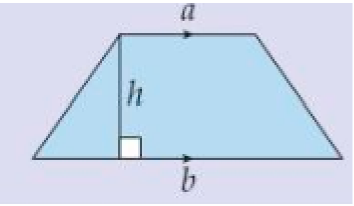


Knowledge Organiser

Subject	Year	Term	KO n.o.	Title
Mathematics	7	1	2C	Ch 2 Measure. Perimeter and Area

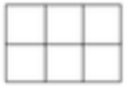
Area of trapeziums



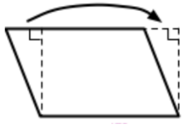
Area of a trapezium

= ½ (a +b) x h

Area of Rectangles, Triangles and Parallelograms



Area = base x height



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Solve problems with perimeter

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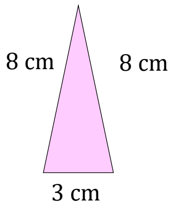


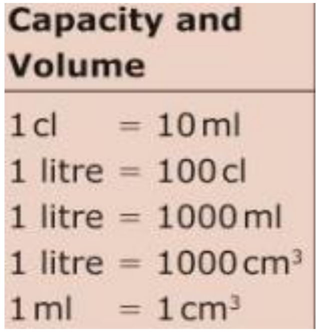
The triangle has a perimeter of

8cm + 8cm + 3cm = 19cm

Converting between different Metric units

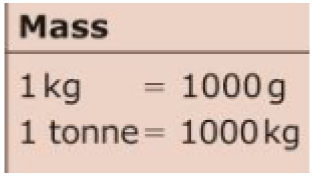
Length	
1 cm	= 10 mm
1 m	= 100 cm
1 km	= 1000 m

Area	
1 cm²	= 100 mm²
1 m²	= 10 000 cm²
1 ha	= 10 000 m²
1 km²	= 1 000 000 m²



Capacity and Volume	
1 cl	= 10 ml
1 litre	= 100 cl
1 litre	= 1000 ml
1 litre	= 1000 cm³
1 ml	= 1 cm³

Time	
1 minute	= 60 seconds
1 hour	= 60 minutes
1 day	= 24 hours
1 week	= 7 days
1 year	= 365 days



Mass	
1 kg	= 1000 g
1 tonne	= 1000 kg

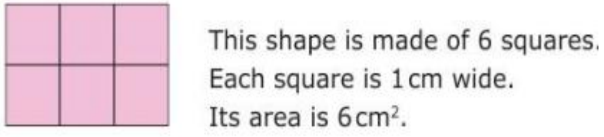
Area and Perimeter

The area of this rectangle is 5 x 15 = 75 **mm²**.

The perimeter of this rectangle id 5 + 15 + 5 + 15 = 40 **mm**

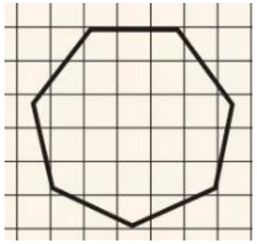
Area

Area is the space inside a 2D shape



This shape is made of 6 squares.
Each square is 1 cm wide.
Its area is 6 cm².

Estimating the area of a 50p coin, it is about 21 whole squares and 9 part squares which will be about 5 more whole square. 21 + 5 = 26 squares.



Knowledge Organiser

Subject	Year	Term	KO n.o.	Title
Mathematics	7	1	3A	Ch 3 Expressions and Formulae

Algebraic and Verbal Expressions

5 more than x	$x + 5$
5 less than x	$x - 5$
5 lots of x	$5x$
x divided by 5	$\frac{x}{5}$

Collecting Like terms

$x + 4y + 6x + 2y \equiv 7x + 6y$

$3x + y - 2x + 4y \equiv x + 5y$

Writing a Formula

Ellie uses 3 eggs per fry-up breakfast.

a Use words to write a formula for how many eggs she uses in a day.

b 5 people order fry-ups.
How many eggs does she use?

c Use symbols to write her formula in a shorter way.

a number of fry-up orders × 3 eggs each = total number of eggs

b The formula gives

5 orders × 3 eggs each = total number of eggs

5 × 3 = 15

She uses 15 eggs in total.

c number of fry-up orders × 3 eggs each = total number of eggs

$$\begin{tikzcd}[column sep=small] \text{number of fry-up orders} \arrow[d] & \times & \text{3 eggs each} \arrow[d] & = & \text{total number of eggs} \arrow[d] \\ f & \times & 3 & = & e \end{tikzcd}$$

$3f = e$

Substitution into Expressions

$4y \longleftarrow$ 4 lots of 'y'

If y = 7 this means the expression is asking for 4 'lots of' 7

4 x 7 OR 7 + 7 + 7 + 7 OR 7 x 4 $\boxed{= 28}$

eg: $y - 2$
$= 7 - 2 = 5$

The number of sweets in each packet is *y* and there are five loose sweets.

The total number of sweets = $2y + 5$

If the number of sweets in a packet is 10, then $y = 10$

Total number of sweets $= 2 \times 10 + 5$
$= 20 + 5$

Total number of sweets = 25

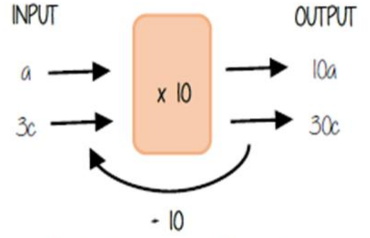
Using letters to represent Numbers

5 + 5 + 5 = 3 x 5

y + y + y +y = 4 x y = **4y**

20 ÷ h = 20 shared in to h groups

Single Function Machines



To find the input from the output
Use the INVERSE operation

Knowledge Organiser

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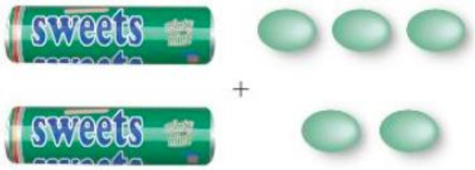

The total number of sweets = 2*y* + 5

If the number of sweets in a packet is 10, then *y* = 10

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↓ ↓ ↓
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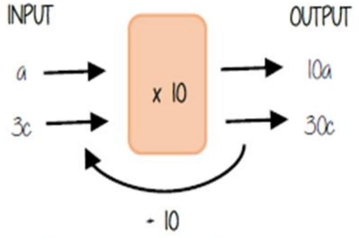

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eg: y – 2
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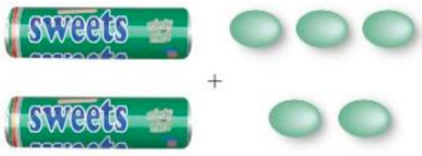

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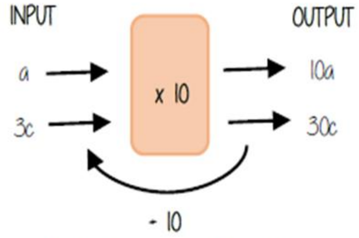

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Use the INVERSE operation

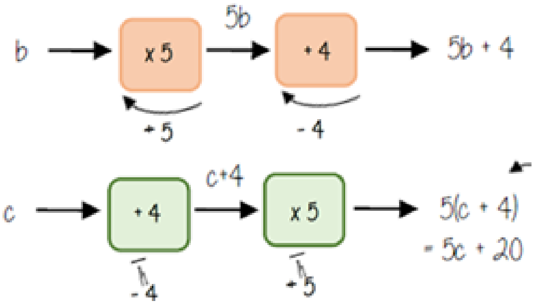
Substitution

Find the value of a) $2y^2$ and b) $y^3 + 2$ given that y = -3.

a) $2y^2 = 2 \times y \times y$
$= 2 \times (-3) \times (-3)$
$= \mathbf{18}$

b) $y^3 + 2 = (y \times y \times y) + 2$
$= (-3) \times (-3) \times (-3) + 2$
$= -27 + 2 = \mathbf{-25}$

2 Step Function Machines



Important – Calculate the value at the end of each operation.

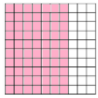
Note the whole first output is multiplied by 5

Knowledge Organiser

Subject	Year	Term	KO n.o.	Title
Mathematics	7	1	4A	Ch 4 Fractions, Decimals and Percentages

Converting between FDP

$\frac{70}{100}$ → This also means 70 ÷ 100 → 70 out of 100 squares →



→ 70 hundredths **= 70%**

70 "hundredths" = 7 "tenths" 0.7

Using a **calculator** $\frac{■}{□}$ → S⇌D

This will give you the answer in the simplest form

Converts to a decimal

× 100 converts to a percentage

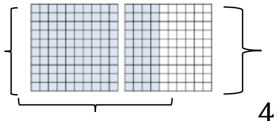
Be careful of recurring decimals

e.g $\frac{1}{3}$ = **0.3333333**

$= 0.\dot{3}$

The dot above the 3

Convert FDP < and > 100%



100 hundredths = 10 tenths **= 100%**

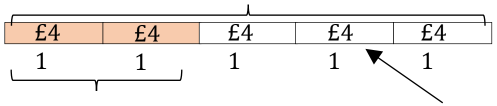
140 hundredths = 14 tenths **= 140%**

40 hundredths = 4 tenths **= 40%**

100% + 40% is 1 + 0.40 = 1.40

Fraction of an amount

Find $\frac{2}{5}$ of £205



£205 ÷ 5 = £41

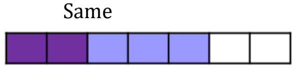
2 out of the 5 equal parts

Each part of the bar model represents £41.

2 x £41 = **£82**

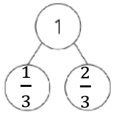
Add/Subtract fractions

$\frac{2}{7} + \frac{3}{7}$



$= \frac{5}{7}$

Sequences



$\frac{1}{3}$, 1, $1\frac{2}{3}$, $2\frac{1}{3}$, 3, …

$+\frac{2}{3}$ $+\frac{2}{3}$

Represent this on a number line to help

Add/Subtraction fractions

$$\frac{4}{9} + \frac{2}{9} = \frac{6}{9} = \frac{2}{3}$$

We add/subtract the numerators

Simplify the answer (if possible)

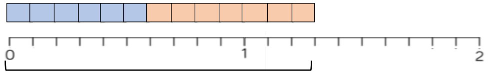
Denominators need to be the same before we can add/subtract fractions

The denominator stays the same. We **never** add/subtract the denominator

Add/Subtraction fractions (common multiples)

$\frac{3}{5} + \frac{7}{10}$

Addition/Subtraction needs a **common denominator**

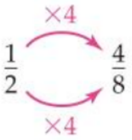


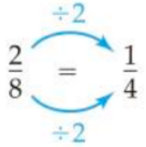
$\frac{6}{10} + \frac{7}{10}$

$\frac{13}{10}$

Equivalent fractions

Equivalent Fractions have the same value.
You can find equivalent fractions by…..



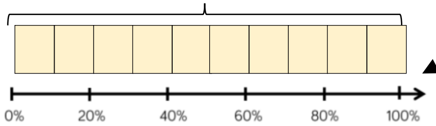


Multiplying top and bottom by the same number

Dividing top and bottom by the same number

Find the percentage of an amount

The **whole** represents 100%



10% = $\frac{1}{10}$ of the whole

10% = $\frac{1}{10}$ of the whole   50% = $\frac{5}{10}$ = $\frac{1}{2}$ of the whole

20% = $\frac{2}{10}$ = $\frac{1}{5}$ of the whole   5% = $\frac{1}{20}$ of the whole

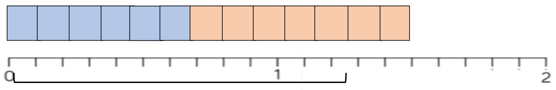
Find 65% of 80

65% = 10% x 6 + 5%
= (8 x 6) + 4 = **52**

Add/Subtraction fractions (common multiples)

Addition/Subtraction needs a **common denominator**

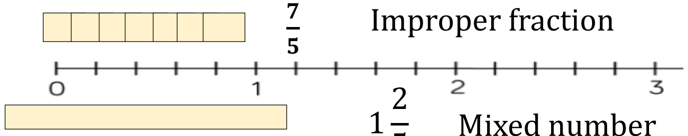
$\frac{3}{5} + \frac{7}{10}$



$\frac{6}{10} + \frac{7}{10}$

$\frac{13}{10}$

Mixed numbers and fractions



$\frac{7}{5}$ Improper fraction

$1\frac{2}{5}$ Mixed number

In this model 5 parts make up a whole

Fractions can be bigger than a whole

Knowledge Organiser

Subject	Year	Term	KO n.o.	Title
Mathematics	7	1	4B	Ch 4 Fractions, Decimals and Percentages

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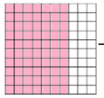

→ 70 hundredths = 70%

70 "hundredths" = 7 "tenths" 0.7

Using a calculator $\frac{■}{□}$ → S⇌D → Converts to a decimal

× 100 converts to a percentage

This will give you the answer in the simplest form

Be careful of recurring decimals

e.g $\frac{1}{3}$ = 0.3333333 = $0.\dot{3}$

The dot above the 3

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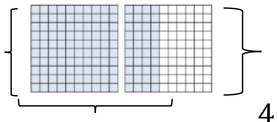

100 hundredths = 10 tenths = **100%**

140 hundredths = 14 tenths = **140%**

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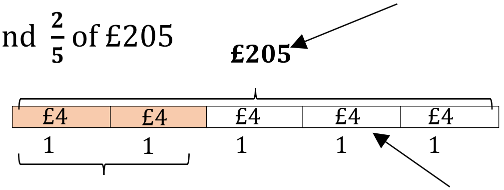
100% + 40% is 1 + 0.40 = 1.40

Fraction of an amount

Find $\frac{2}{5}$ of £205



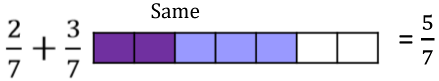
£205 ÷ 5 = £41

2 out of the 5 equal parts

2 x £41 = **£82**

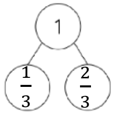
Each part of the bar model represents £41.

Add/Subtract fractions

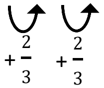


$\frac{2}{7}+\frac{3}{7}=\frac{5}{7}$

Sequences



$\frac{1}{3}, 1, 1\frac{2}{3}, 2\frac{1}{3}, 3, \ldots$



Represent this on a number line to help

Add/Subtraction fractions

$$\frac{4}{9}+\frac{2}{9}=\frac{6}{9}=\frac{2}{3}$$

We add/subtract the numerators

Simplify the answer (if possible)

Denominators need to be the same before we can add/subtract fractions

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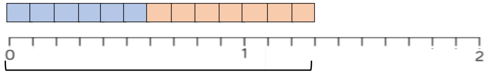
Add/Subtraction fractions (common multiples)

$\frac{3}{5}+\frac{7}{10}$

$\frac{6}{10}+\frac{7}{10}$

Addition/Subtraction needs a **common denominator**



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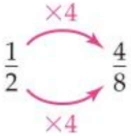
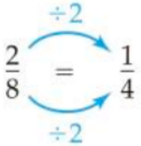


$\frac{1}{2}$ → $\frac{4}{8}$

Multiplying top and bottom by the same number



$\frac{2}{8}=\frac{1}{4}$

Dividing top and bottom by the same number

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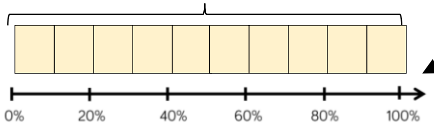

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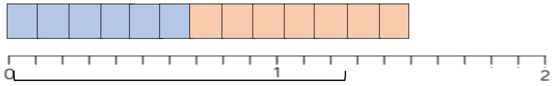

$\frac{13}{10}$

Find the percentage of an amount with a calculator

Using a multiplier

65% of 80 becomes 80 x 0.65 = 52

23% of 50 becomes 50 x 0.23 = 11.5

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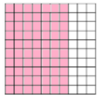

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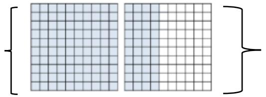

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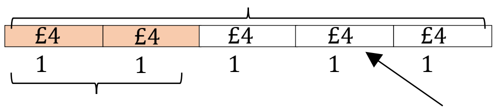

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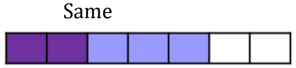
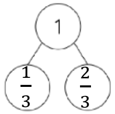


= $\frac{5}{7}$

Sequences



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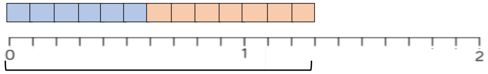

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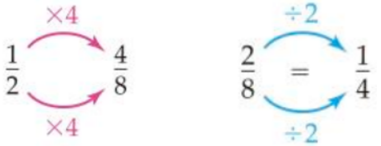
Equivalent fractions

Equivalent Fractions have the same value.

You can find equivalent fractions by…..

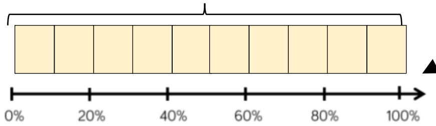


Multiplying top and bottom by the same number

Dividing top and bottom by the same number

Find the percentage of an amount

The **whole** represents 100%



10% = $\frac{1}{10}$ of the whole

10% = $\frac{1}{10}$ of the whole | 50% = $\frac{5}{10}$ = $\frac{1}{2}$ of the whole

20% = $\frac{2}{10}$ = $\frac{1}{5}$ of the whole | 5% = $\frac{1}{20}$ of the whole

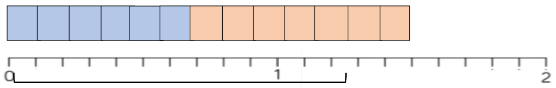
Find 65% of 80

65% = 10% x 6 + 5%
= (8 x 6) + 4 = **52**

Add/Subtraction fractions (common multiples)

Addition/Subtraction needs a **common denominator**

$\frac{3}{5} + \frac{7}{10}$



$\frac{6}{10} + \frac{7}{10}$

$\frac{13}{10}$

Find the percentage of an amount with a calculator

Using a multiplier

65% of 80 becomes 80 x 0.65 = 52

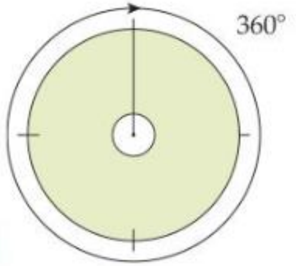
23% of 50 becomes 50 x 0.23 = 11.5

Knowledge Organiser

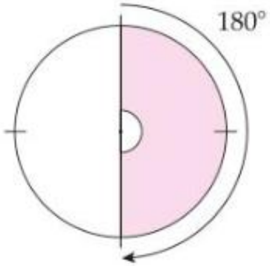
Subject	Year	Term	KO n.o.	Title
Mathematics	7	1	5A	Ch 5 Angles and 2D shape

Angles in a circle

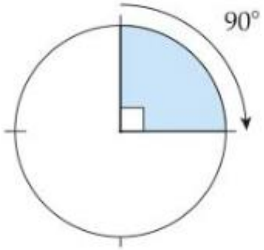
There is **360º** in a full turn



There is **180º** in half a turn

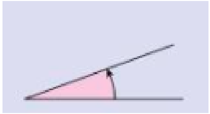


There is **90º** in a quarter of a turn. This is a **right angle**.

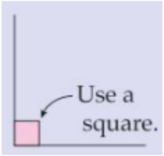


Angle Types

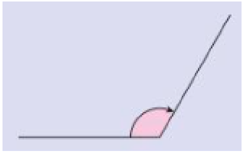
An **Acute** angle Is **smaller than 90º**



A **Right angle** is **exactly 90º**

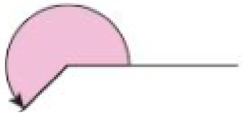


An **Obtuse Angle** is **between 90º and 180º**



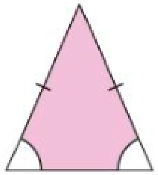
Angles on a **straight line** is **exactly 180º**

Reflex angles are **more than 180º but less than 360º**



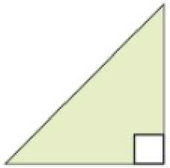
2D Shapes

Isosceles



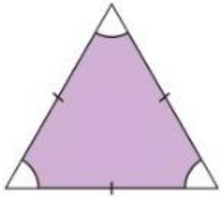
Two sides equal.
Two angles equal.

Right-angled



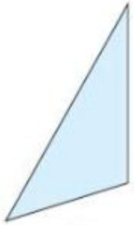
One angle 90°.

Equilateral



All sides equal.
All angles equal.

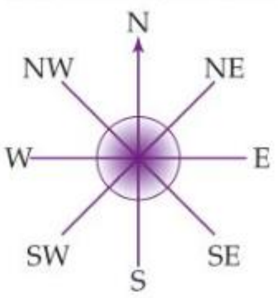
Scalene



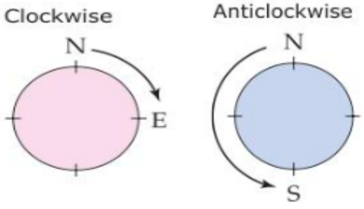
All sides different.
All angles different.

Compass Turns

The 4 main directions are **North, South, East and West**

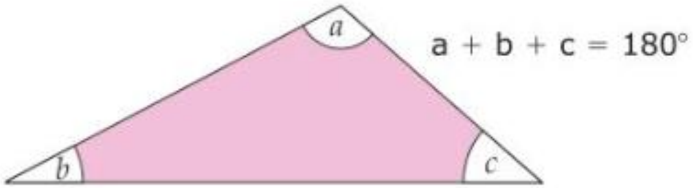


To use a compass you need to remember

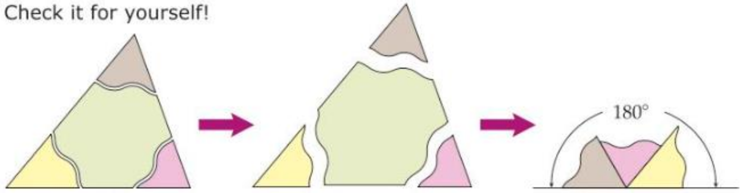


Angles in a triangle

Angles in a triangle adds up to 180º



Check it for yourself!

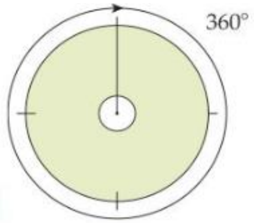


Knowledge Organiser

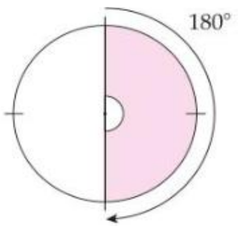
Subject	Year	Term	KO n.o.	Title
Mathematics	7	1	5B	Ch 5 Angles and 2D shape

Angles in a circle

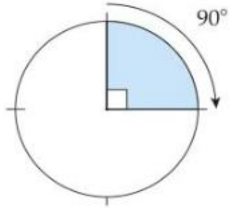
There is **360º** in a full turn



There is **180º** in half a turn

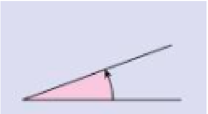


There is **90º** in a quarter of a turn. This is a **right angle**.

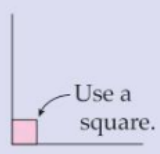


Angle Types

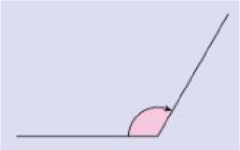
An **Acute** angle Is **smaller than 90º**



A **Right angle** is **exactly 90º**

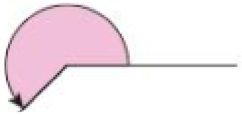


An **Obtuse Angle** is **between 90º and 180º**



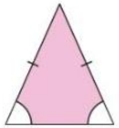
Angles on a **straight line** is **exactly 180º**

Reflex angles are **more than 180º but less than 360º**



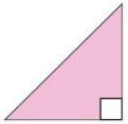
2D Shapes

Isosceles



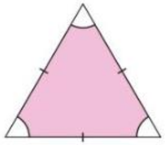
Two sides are equal.
Two angles are equal.

Right-angled



One angle is 90°.

Equilateral

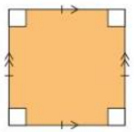


All sides are equal.
All angles are equal.

Scalene

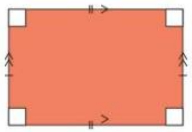
All sides different.
All angles different.

Square



4 × 90° angles
4 equal sides
2 pairs **parallel** sides

Rectangle

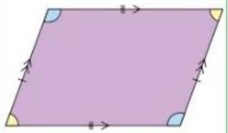


4 × 90° angles
2 pairs equal sides
2 pairs parallel sides

Rhombus

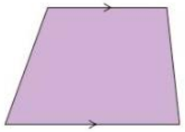
2 pairs equal angles
4 equal sides
2 pairs parallel sides

Parallelogram



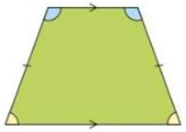
2 pairs equal angles
2 pairs equal sides
2 pairs parallel sides

Trapezium



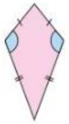
1 pair parallel sides

Isosceles trapezium



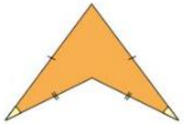
2 pairs equal angles
1 pair equal sides
1 pair parallel sides

Kite



1 pair equal angles
2 pairs equal sides
no parallel sides

Arrowhead

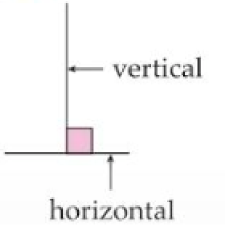


1 pair equal angles
2 pairs equal sides
no parallel sides

Terminology

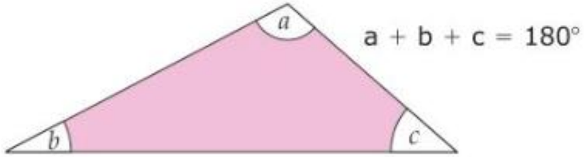
Parallel lines are always the same distance apart

Perpendicular lines meet at right angles

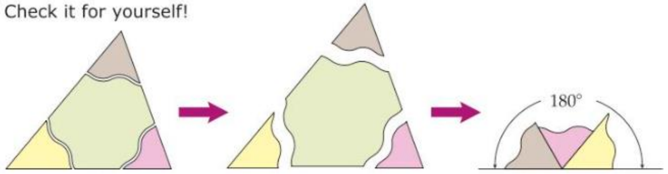


Angles in a triangle

Angles in a triangle adds up to 180º



Check it for yourself!

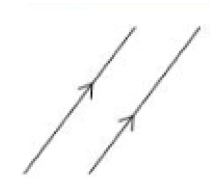


Knowledge Organiser

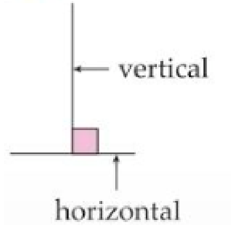
Subject	Year	Term	KO n.o.	Title
Mathematics	7	1	5C	Ch 5 Angles and 2D shape

Angles and parallel lines

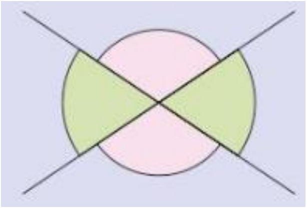
Parallel lines are always the same distance apart



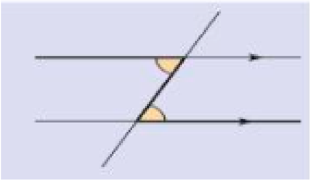
Perpendicular lines meet at right angles



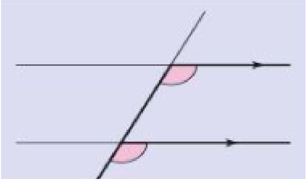
Vertically opposite angles **are equal**



Alternate Angles are equal

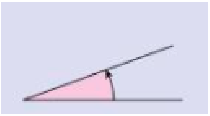


Corresponding angles are equal

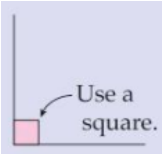


Angle Types

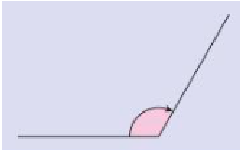
An **Acute** angle Is **smaller than 90°**



A **Right angle** is **exactly 90°**

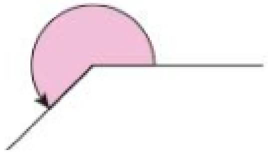


An **Obtuse Angle** is **between 90° and 180°**



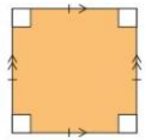
Angles on a **straight line** is **exactly 180°**

Reflex angles are **more than 180° but less than 360°**



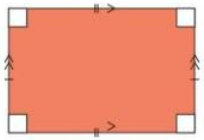
2D Shapes

Square



4 × 90° angles
4 equal sides
2 pairs **parallel** sides

Rectangle

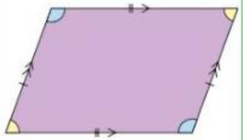


4 × 90° angles
2 pairs equal sides
2 pairs parallel sides

Rhombus

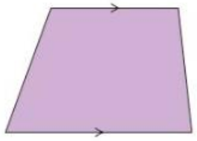
2 pairs equal angles
4 equal sides
2 pairs parallel sides

Parallelogram



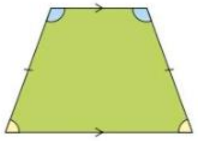
2 pairs equal angles
2 pairs equal sides
2 pairs parallel sides

Trapezium



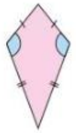
1 pair parallel sides

Isosceles trapezium



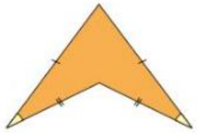
2 pairs equal angles
1 pair equal sides
1 pair parallel sides

Kite



1 pair equal angles
2 pairs equal sides
no parallel sides

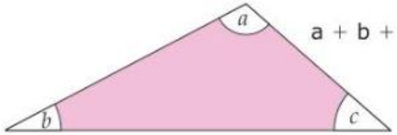
Arrowhead



1 pair equal angles
2 pairs equal sides
no parallel sides

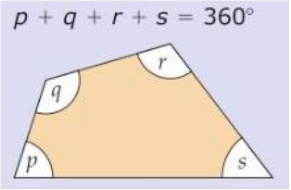
Angles in a triangle and quadrilateral

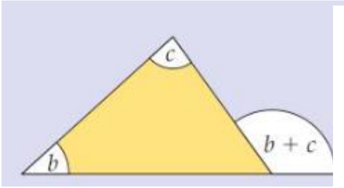
Angles in a **triangle** adds up to **180°**



a + b + c = 180°

Interior angles of a **quadrilateral** add up to **360°**





Exterior angles are found by extending one side at the corner.

The exterior angle of a triangle adds up to the other 2 interior angles