Y6 Maths Crib Sheets

Place Value in numbers to 10 million

The position of the digit gives its value.

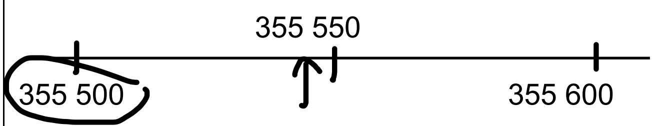
Ten millions	Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Ones	Decimal Point	tenths	hundredths	thousandths
5	6	4	3	2	1	1	1	•	0	1	7

The value of the digit **5** is equal to **5**0 000 000.
The value of the digit **6** is equal to **6** 000 000.
The value of the digit **4** is equal to **4**00 000.
The value of the digit **3** is equal to **3**0 000.
The value of the digit **7** is equal to 0.00**7.**

Round whole numbers

Round 355 549 to the nearest 100.

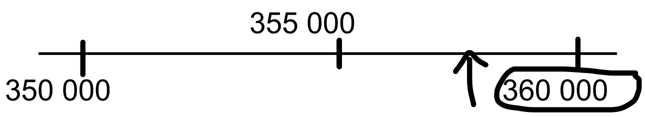
Step 1- find the previous and next multiple 100.
Step 2- find the midpoint.
Step 3- decide if the number is closer to the previous or next multiple of 100.



Answer: **355 500**

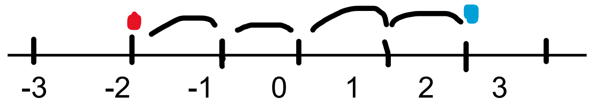
Round 355 549 to the nearest 10 000.

Step 1- find the previous and next multiple 10 000.
Step 2- find the midpoint.
Step 3- decide if the number is closer to the previous or next multiple of 10 000.



Answer: **360 000**

Negative numbers



2 > -2
2 is greater than -2.
2 is the larger number.

-2 < 2
-2 is less than 2
-2 is the smaller number.

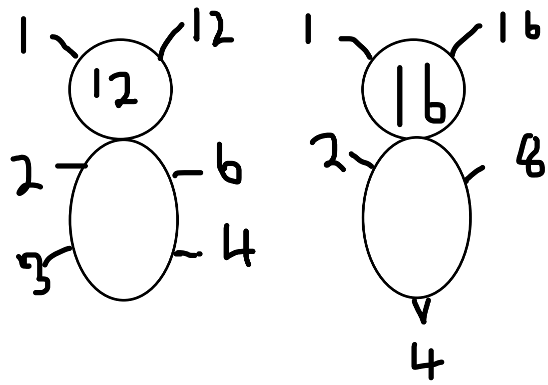
The difference between -2 and 2 **is 4** (see number line).

When **subtracting**, move to the **left** along the number line.
When **adding**, move to the **right** along the number line.

6 + - 2 is equal to 6 – 2 = 4
6 - + 2 is equal to 6 – 2 = 4
6 - -2 is equal to 6 + 2 = 8

Factors

A **factor** in maths is one of two or more numbers that divide into a number without a remainder.



The factors of 12 are 1, 2, 3, 4, 6 and 12.
The factors of 16 are 1, 2, 4, 8 and 16.
The common factors of 12 and 16 are 1, 2 and 4.
The highest common factor is 4.

Multiples

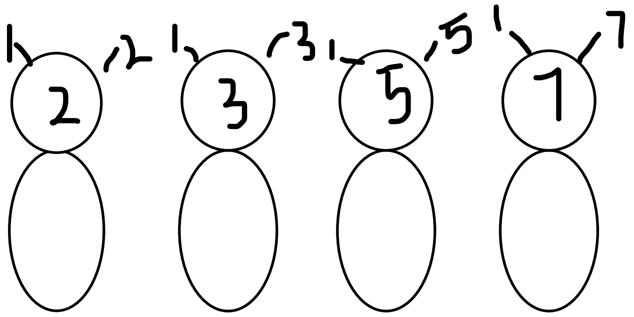
A multiple is a product that we get when one number is multiplied by another number.

Multiples of 4:	Multiples of 5:
4	5
8	10
12	15
16	**20**
20	…
…	

The lowest common multiple of 4 and 5 is **20**.

Prime numbers

Prime numbers are numbers that have only **2 factors**: 1 and themselves.



The **first 20** primes are 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67 and 71.

Order of Operations

Brackets
Indices
Divide
Multiply — Do these in the order they appear
Add
Subtract — Do these in the order they appear

5 + 6 x 2 = 17 *(6 x 2 = 12 + 5 = 17)*
(5 + 6) x 2 = 22 *(5 + 6 = 11 x 2 = 22)*
5^2 + 6 ÷ 2 = 28 *(5^2 = 25, 6 ÷ 2 = 3, 25 + 3 = 28)*

Multiply numbers and checking

		1	2	4	
×			2	6	
		7	4	4	(124×6)
+	2	4	$^{1}8$	$^{2}0$	(124×20)
	3	2	2	4	(124×26)
	1	1			

Use estimates to check:
124 x 26
≈125 x 25
125 x 20 (x 2 then 10) = 2500
125 x 5 (x10 ÷ 2) = 625
2500 + 625 = 3125

Or use the inverse to check:
3224 ÷ 26

			1	2	4
2	6	3	2	2	4
	-	2	6	↓	↓
			6	2	
		-	5	2	
			1	0	4
		-	1	0	4
					0

Dividing numbers and checking

Solve 432 ÷ 15 = 22 r 12

		0	2	8	r 12
1	5	4	3	2	
	-	3	0	↓	
		1	3	2	
	-	1	2	0	
			1	2	

Answer with remainder expressed as a fraction

432 ÷ 15 = $28\frac{12}{15}$ which can be simplified to $28\frac{4}{5}$

Solved using short division with answer expressed as a decimal.

		0	2	8.	8	
1	5	4	$^{4}3$	$^{13}2$	.$^{12}0$	

Long division can also be used to express answers as decimals.

		0	2	8	.8
1	5	4	3	2	.0
	-	3	0	↓	↓
		1	3	2	
	-	1	2	0	
			1	2	0
		-	1	2	0
					0

Use estimates to check:
432 ÷ 15
≈ 450 ÷ 15 = 30

Or use the inverse to check:
28.8 x 15

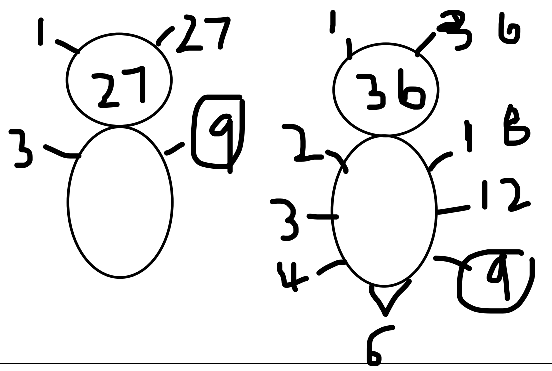
		2	8	.8	
	x		1	5	
	1	4 $_4$	4 $_4$	0	
	2	8	8	0	
	4	3	2	.0	
	$_1$	$_1$			

Equivalent fractions

To simplify a fraction:

$$\frac{27}{36}$$

Step 1: Find the highest common factor of the numerator (27) and the denominator (36).



Step 2: Divide both the numerator and the denominator by the highest common factor (9)

$$\frac{27 \div 9}{36 \div 9} = \frac{3}{4}$$

To change fractions to the same denominator, either to add, subtract, or to compare and order:

$$\frac{3}{4} \qquad \frac{2}{3}$$

Step 1: Find the lowest common multiple of the denominators (4 and 3)

4, 8, 12   3, 6, 9, 12

Step 2: Multiply the numerator and denominator to convert the fractions to fractions over 12.

$$\frac{3}{4} \xrightarrow{\times 3} \frac{9}{12} \qquad \frac{2}{3} \xrightarrow{\times 4} \frac{8}{12}$$

Convert mixed numbers and improper fractions

To convert a mixed number into an improper fraction:

Convert the whole number into a fraction with the denominator as the fraction.

$$1\frac{1}{5} = \frac{5}{5} + \frac{1}{5} = \frac{6}{5}$$

To convert an improper fraction into a mixed number:

$$\frac{11}{5} = 11 \div 5 = 2\frac{1}{5}$$

Add and subtract fractions

Important!

Convert the fractions to the **same** denominator.
Do **not** add the denominators.

When one denominator is a multiple of the other	When neither denominators are multiples
$\frac{1}{5}+\frac{3}{10}$ 10 is a multiple of 5. Multiple the numerator and denominator by 2 (5 x 2 = 10) $\frac{2}{10}+\frac{3}{10}=\frac{5}{10}$	$\frac{4}{5}-\frac{2}{3}$ Find the lowest common multiple of the denominators (15) $\frac{4}{5}-\frac{2}{3}$ x3 x5 $\frac{12}{15}-\frac{10}{15}=\frac{2}{15}$

Multiply fractions

Write whole numbers as fractions over 1, e.g., 5 = $\frac{5}{1}$
Multiply the numerators and denominators.

E.g., $3 \times \frac{2}{5} = \frac{3}{1} \times \frac{2}{5} = \frac{6}{5} = 1\frac{1}{5}$

E.g., $\frac{4}{5} \times \frac{3}{4} = \frac{12}{20}$

E.g., $1\frac{2}{3} \times \frac{2}{5} = \frac{5}{3} \times \frac{2}{5} = \frac{10}{15} = \frac{2}{3}$

Dividing fractions

Dividing by a whole number can be expressed as x by a unit fraction, e.g.,

÷ 5 can be expressed as x $\frac{1}{5}$

Likewise, when dividing by a fraction, it can be expressed as x by its inverted form.

÷ $\frac{2}{4}$ can be expressed as x $\frac{4}{2}$

This is useful when dividing a fraction by a whole number as well as fractions by fractions.

$$\frac{2}{10} \div 3 = \frac{2}{10} \times \frac{1}{3} = \frac{2}{30}$$

$$\frac{3}{4} \div \frac{2}{5} = \frac{3}{4} \times \frac{5}{2} = \frac{15}{8} = 15 \div 8 = 1\frac{7}{8}$$

Adding and subtracting with mixed numbers

One method is to convert any mixed numbers into improper fractions.

$$2\frac{3}{5} + 1\frac{1}{4}$$

$$2\frac{3}{5} = \frac{10}{5} + \frac{3}{5} = \frac{13}{5}$$

$$1\frac{1}{4} = \frac{4}{4} + \frac{1}{4} = \frac{5}{4}$$

$$\frac{13}{5} + \frac{5}{4}$$

Find the lowest common multiple and convert the fractions so they have the same denominator (20)

$$\frac{52}{20} + \frac{25}{20} = \frac{77}{20} = 3\frac{17}{20}$$

Another method is to partition the mixed numbers into whole numbers and fractions before adding or subtracting separately to recombine at the end.

$$2\frac{3}{5} + 1\frac{1}{4}$$

$$2 + 1 = 3$$

$$\frac{3}{5} + \frac{1}{4} \quad \text{(LCM = 20)}$$

$$\frac{12}{20} + \frac{5}{20} = \frac{17}{20} + 3 = 3\frac{17}{20}$$

It can sometimes get a little tricky when using the partitioning method when subtracting mixed numbers.

$$2\frac{1}{5} - 1\frac{1}{4}$$

2 – 1 = 1

$\frac{1}{5} - \frac{1}{4}$ (LCM = 20)

$\frac{4}{20}$ - $\frac{5}{20}$ Can't subtract the numerators when the first numerator is smaller than the second

When this happens, we need to regroup one of the whole numbers and add it to the first fraction.

$\cancel{2}$ 1 – 1 = 1

$1 = \frac{5}{5}$ so $\left(\frac{5}{5} + \frac{1}{5}\right) - \frac{1}{4}$

$\frac{6}{5} - \frac{1}{4}$ = $\frac{24}{20}$ - $\frac{5}{20}$ = Can do = $\frac{19}{20}$

The numerator is now big enough to subtract from

$\frac{19}{20} + 1 = 1\frac{19}{20}$

Multiplying mixed numbers

$$2\frac{3}{5} + 1\frac{1}{4}$$

Convert the mixed numbers into improper fractions.

$$2\frac{3}{5} = \frac{10}{5} + \frac{3}{5} = \frac{13}{5}$$

$$1\frac{1}{4} = \frac{4}{4} + \frac{1}{4} = \frac{5}{4}$$

$$\frac{13}{5} \text{ x } \frac{5}{4} = \frac{65}{20} = 3\ \frac{5}{20} = 3\ \frac{1}{4}$$

Multiply and divide by 10, 100 or 1000

To multiply by **10,** move each digit **one** place to the **left**.

hundreds	tens	ones	•	tenths
	3	5	•	6
3	5	6	•	

To divide by **10**, move each digit **one** place to the **right**.

hundreds	tens	ones	•	tenths	hundredths
	3	5	•	6	
		3	•	5	6

To multiply by **100**, move each digit **two** places to the **left**.

To divide by **100**, move each digit **two** places to the **left**.

To multiply by **1000**, move each digit **three** places to the **left**.

To divide by **1000**, move each digit **three** places to the **left**.

With lots of practice, you should be able to visualise (picture) the movement of the digits in your head without needing to draw a place value chart.

There is a CHEAT method too:

Instead of moving the digits
Move the decimal point **the opposite way**

Remember though that the decimal **always** can be found between the ones and the tenths.

If you use this method of moving the decimal point instead of the digits, remember the value of the digits will all change.

Fraction, decimals and percentages

It is useful to learn some fraction, decimal and percentages equivalences off by heart.

$\frac{1}{4}$ = 0.25 = 25%

$\frac{1}{2}$ = 0.5 = 50%

$\frac{3}{4}$ = 0.75 = 75%

$\frac{1}{10}$ = 0.1 = 10%

Percentage to decimal to fraction:

27% = 0.27 = $\frac{27}{100}$

7% = 0.07 = $\frac{7}{100}$

70% = 0.7 = $\frac{70}{100}$ = $\frac{7}{10}$

Decimal to percentage to fraction:

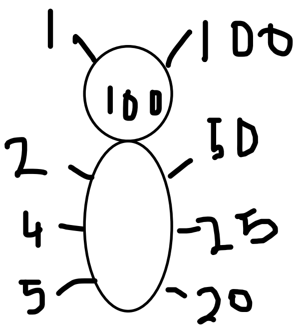
0.3 = 30% = $\frac{3}{10}$

0.03 = 3% = $\frac{3}{100}$

0.39 = 39% = $\frac{39}{100}$

Fraction to decimal to percentage:

It is again useful to know factors of 100 off by heart.



x20

$\frac{4}{5} = \frac{80}{100}$ = 80% = 0.8

x 20

If the denominator is not a factor of 100, you will need to divide the numerator by the denominator.

$\frac{3}{8}$ =

		0 .	3	7	5
	8	3 .	$^{3}0$	$^{6}0$	$^{4}0$

0.375 = 37.5%

÷ 3

$\frac{9}{12} = \frac{3}{4}$ = 0.75 = 75%

÷ 3

Finding a fraction of a quantity

$\frac{4}{5}$ can be expressed in two steps: ÷ 5 then x 4

To find $\frac{4}{5}$ of £40 = £40 ÷ 5 = £8 x 4 = £32

of = x

$\frac{2}{3}$ x 360 = 360÷ 3 = 120 x 2 = 240

Percentage of a quantity

If you know these percentage relationships, you can calculate any percentage:

50% = $\frac{1}{2}$ = ÷ 2   10% = $\frac{1}{10}$ = ÷ 10

5% = $\frac{1}{2}$ x 10% so 10% ÷ 2   1% = ÷ 100

20% = $\frac{1}{5}$ = ÷ 5   25% = $\frac{1}{4}$ = ÷ 4

To find 35% of £400:

Find 10% = £40   I know that 10% x 3 = 30% so £40 x 3 = £120 = 30% of £400.

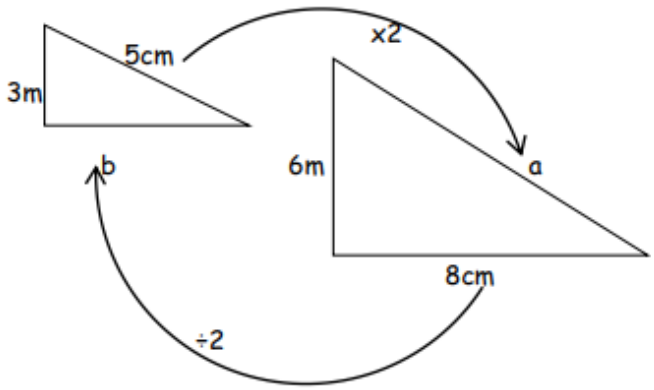
5% is half of 10% so £40 ÷ 2 = £20

30% + 5% = 35%
£120 + £20 = £140

£140 is 35% of £400

Similar Shapes

When a shape is enlarged by a scale factor, the two shapes are called **similar** shapes.



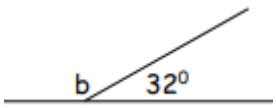
Reduce or enlarge by scale factor of 2
Reduce = make smaller
Enlarge = make bigger

Length a = 5 x 2= 10cm
Length b = 8 ÷ 2 = 4cm

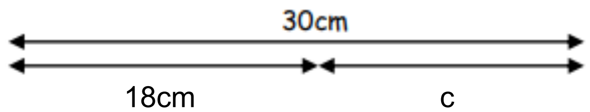
Expressing missing numbers algebraically

An unknown number is given a letter.

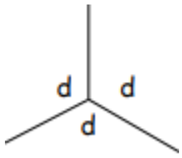
2a – 4 = 8
a = ?
8 + 4 = 12, so 2a= 12
2a means 2 x a, so 12 ÷ 2 = 6
a = 6



b + 32° = 180
180 – 32 = 148°



18cm + c = 30cm, so 30cm – 18cm = c
c = 12cm



3d = 360°, so 360° ÷ 3 =
I know that 36 ÷ 3 = 12 then
so know that 360° ÷ 3 = 120°
d = 120 °

Use a word formula

<u>Time to cook a turkey</u>
Cook for 45 minutes per kg weight.
Then a further 45 minutes.

For a 6kg turkey, follow the formula:
45 mins x 6kg + 45mins
45mins x 6kg = 270 mins + 45 mins
= 315 mins
Convert into hours and minutes:
315 ÷ 60 = 5 hours 15 minutes cooking time

Number sequences

Understand position and term:

Position	1	2	3	4
Term	3	7	11	15

+4

Term to term rule is + 4
Position to term rule is x 4 – 1
because position 1 x 4 – 1 =3

nth term= n x 4 – 1 = 4n – 1

n= 10^{th} position, so 4 x 10 = 40 -1 = 39
The term in the 10^{th} position is 39.

Generate terms of sequence:

If the nth term is 5n + 1
1^{st} term (n = 1) = 5 x 1 +1 = 6
2^{nd} term (n = 2) = 5 x 2 + 1 = 11
3^{rd} term (n = 3) = 5 x 3 + 1 = 16

The 8^{th} term = 5 x 8 + 1 = 41

Possible solutions of a number sentence

This process is known as trial and improvement. Working logically, you try multiple numbers to find all possibilities.

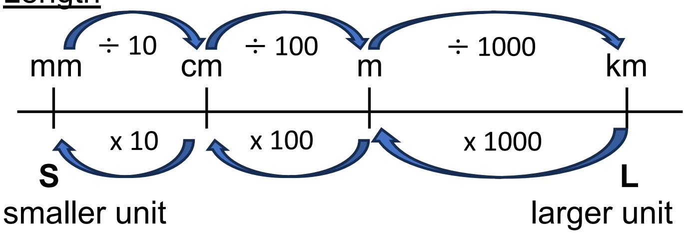
x and y are numbers. Rule x + y = 5.
Possible solutions:

x = 0 and y = 5
x = 1 and y = 4
x = 2 and y = 3
x = 4 and y = 1
x = 5 and y = 0

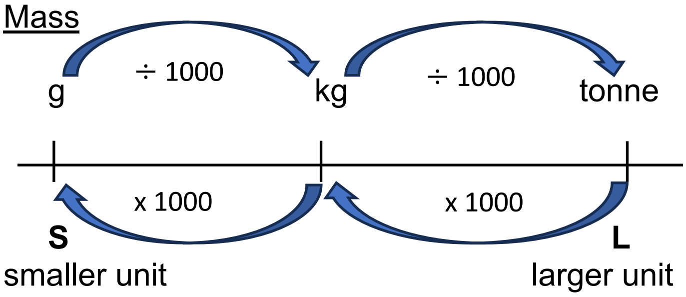
Convert metric units of measure

When converting from a larger unit to a smaller unit – multiply (x).
When converting from a smaller unit to a larger unit- divide (÷).

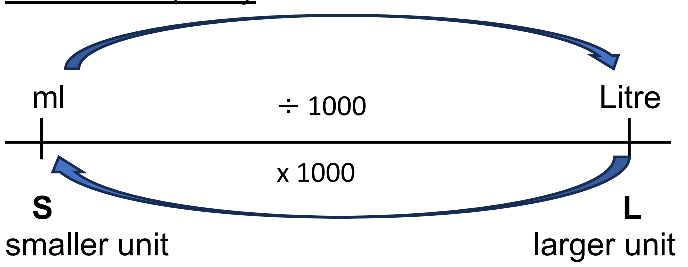
<u>Length</u>



<u>Mass</u>

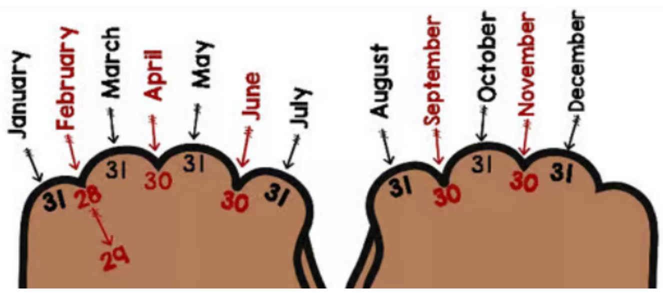


<u>Volume/ Capacity</u>



<u>Time</u>

60 seconds = 1 minute
60 minutes = 1 hour
24 hours = 1 day
7 days = 1 week
14 days = fortnight (2 weeks)
28 days = 4 weeks = 1 month but...



12 months = 1 year
365 days = 1 year
BUT every 4 years, there is a special year which has 366 days. This is a called a leap year.
It actually takes the Earth 365 ¼ days to travel around the Sun. That ¼ is combined into 1 extra day every 4 years, which gives us 29 days in February. Our last leap year was in 2024.

10 years = 1 decade
100 years = 10 decades = 1 century
1000 years = 10 centuries = 1 millennium

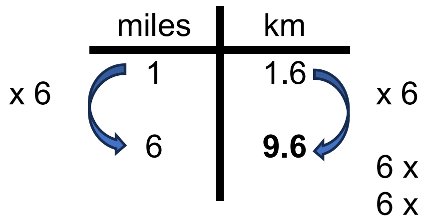
Convert units of measure (metric to imperial and vice versa)

1 mile = 1.6 km
or
5 miles = 8km

miles ⟶ ÷ 5 ⟶ x 8 ⟶ kilometres

kilometres ⟵ x 5 ⟵ ÷ 8 ⟵ miles

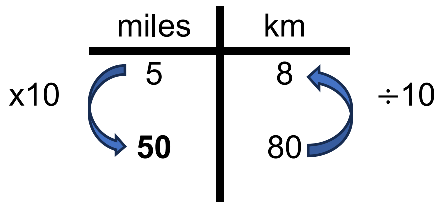
I run 6 miles every week. How many kilometres is that?



6 x 1 = 6
6 x 6 = 36 so,
6 x 0.6 = 3.6
6 + 3.6 = 9.6

I ran 9.6 km every week.

London to Brighton is approximately 80km.
How far is it in miles?



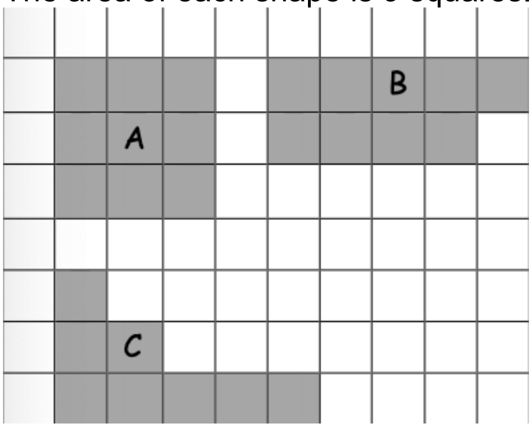
It is 50 miles.

It is useful to know both conversions (1 miles = 1.6 km and 5 miles = 8km) as one conversion may be easier to calculate than the other. For example, if, on the last question above, I used 1 mile = 1.6km. I would have needed to divide 80km by 1.6km to get 50 so that 1 mile x 50 = 50 miles. This is much harder to work out.

Perimeter and area of shapes

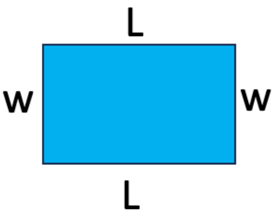
Shapes can have the same area but different perimeters.

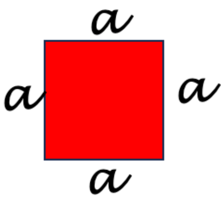
The area of each shape is 9 squares.



Perimeter of each shape is different:
A = 12; B= 14 and C = 16

<u>Area and perimeter of rectangles and squares</u>





Area of a rectangle= L x w

Area of a square = a^2

a x a

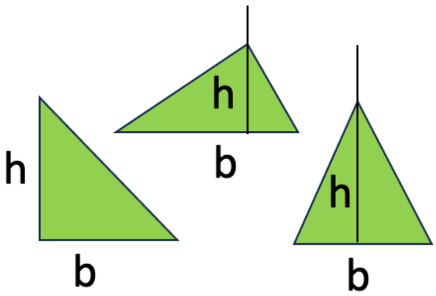
Perimeter of a rectangle= 2(L x w)

nb. L = length w = width

Perimeter of a square = $4a$

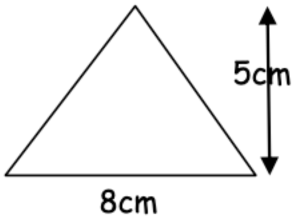
4 x a

<u>Area of triangles and parallelograms</u>

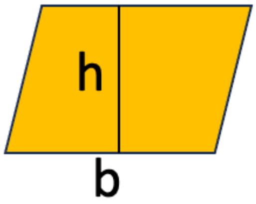


Area of a triangle = ½ (h x b)

nb. h = height b = base

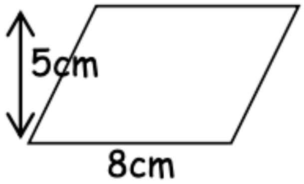


Area of a triangle = ½ (b x h)
= 8 x 5 = 40 ÷ 2 = 20cm^2



Area of a parallelogram = h x b

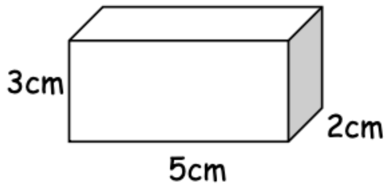
nb. h = height b = base



Area of a parallelogram = h x b
8 x 5 = 40cm^2

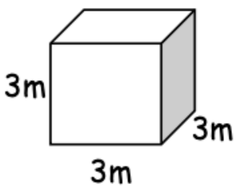
Volume

Volume of a cuboid = length x width x height



volume = l x w x h
5 x 2 x 3
= 30cm^3

Volume of a cube = length x width x height

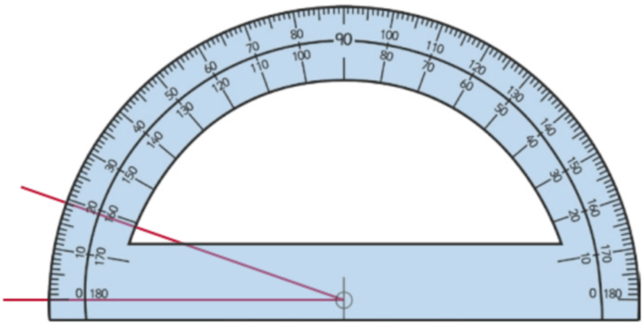


volume = l x w x h
3 x 3 x 3 = 27m^3

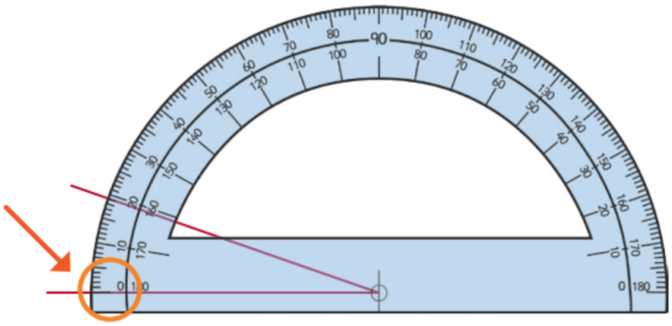
Construct 2D shapes

Commonly, this involves constructing a triangle using a ruler and protractor.

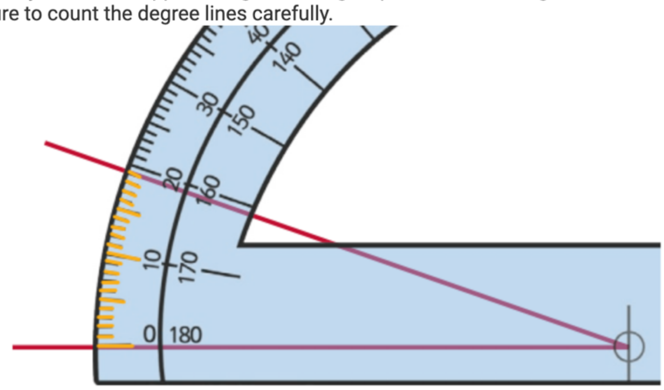
You'll notice there's a cross or a circle in the middle. Place it at the point (also known as the **vertex**) of the angle you are about to measure.



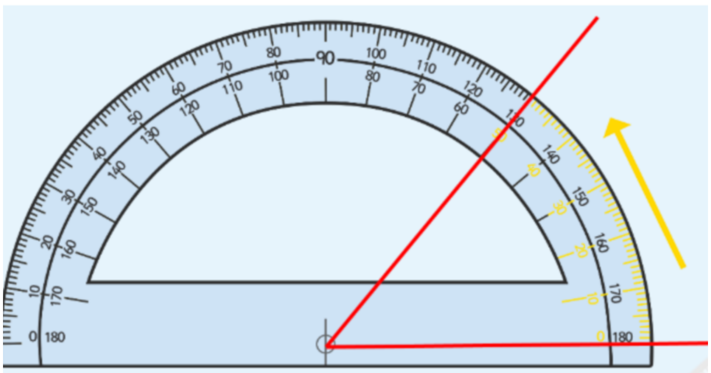
Align one leg of the angle with the baseline of the protractor. Read from the **zero** on the outer scale.



Finally, follow the opposite leg of the angle up to the measuring scale. Make sure to count the degree lines carefully.

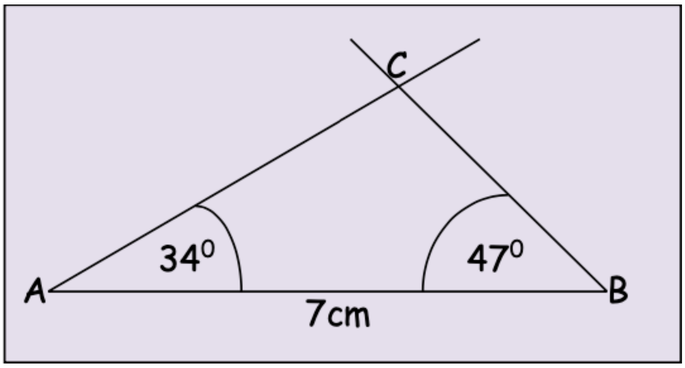


Sometimes, you might come across angles, which lay in an **anti-clockwise direction** (see example below). This is when you need to use the inner scale of the protractor.



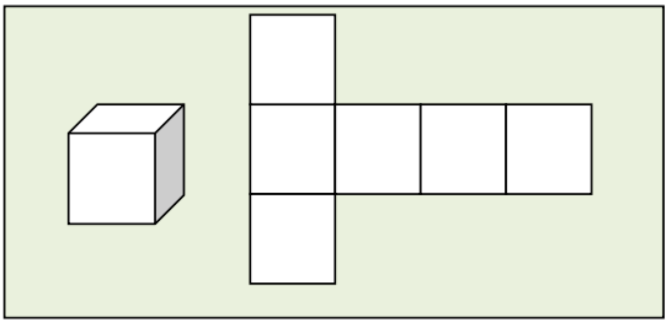
Here's an example of how to draw a triangle with side and angles given.

Draw line AB = 7cm.
Draw angle 34° at point A from line AB
Draw angle 47° at point B from line AB
Extend lines to intersect the lines at C

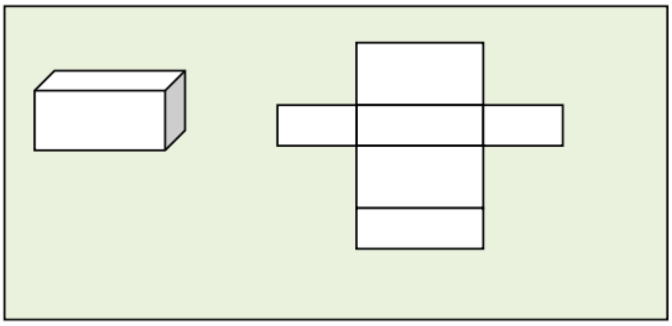


Construct 3D shapes

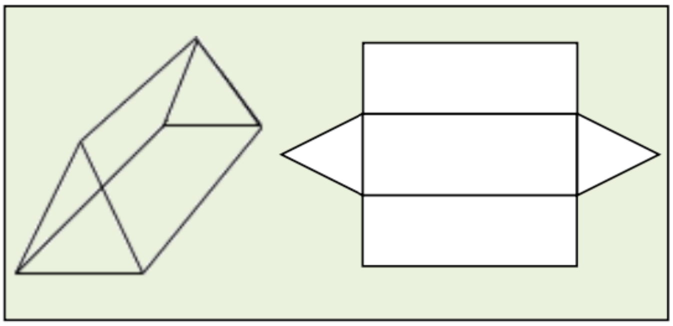
Cube and its net:



Cuboid and its net:



Triangular prism and its net:



These are not the only ways to represent the nets of these shapes.

You will need to recognise **faces**, **edges** (where two faces meet) and **vertices** (where more than two faces meet).

A cube and cuboid have 6 faces, 12 edges and 8 vertices.

A triangular prism has 5 faces, 9 edges and 6 vertices.

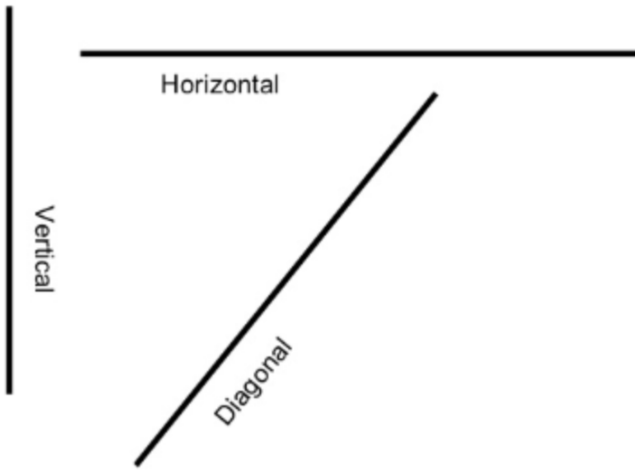
A square based pyramid has 5 faces, 8 edges and 5 vertices.

Properties of shapes

Useful vocabulary includes the following:

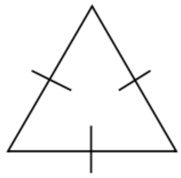
Parallel lines

Perpendicular lines

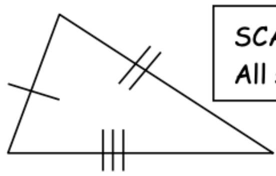


Triangles- sum of internal angles = 180°.

ISOSCELES triangle
2 equal sides & 2 equal angles



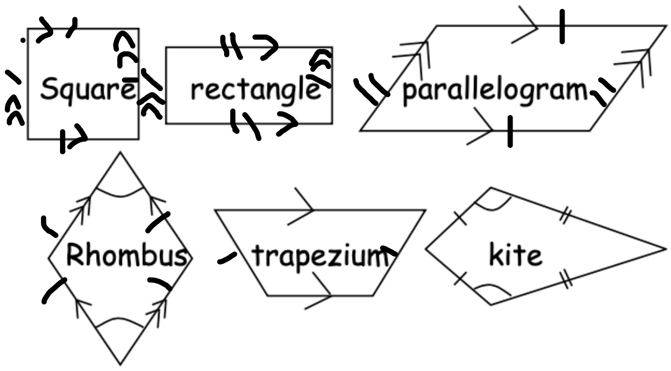
EQUILATERAL triangle
3 equal sides & ALL angles 60⁰



SCALENE triangle
All sides & angles different

Both isosceles and scalene triangles can sometimes have one right angle (90°).

Quadrilaterals – sum of internal angles = 360°

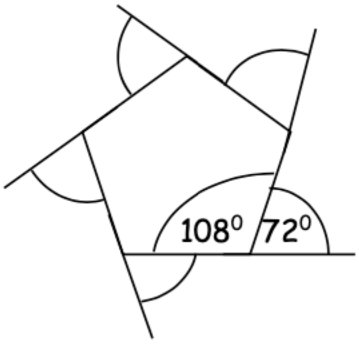


> or >> = parallel lines
/ or // = sides of the same length
All internal angles in squares and rectangles are identical = 90°.

Regular polygons – all sides are the same length.

Polygons have straight sides and are named by the number of sides.
3 sides - **tri**angle
4 sides - **quad**rilateral
5 sides - **pen**tagon
6 sides - **hex**agon
7 sides - **hep**tagon
8 sides - **oct**agon
9 sides - **non**agon
10 sides - **dec**agon

Whether regular or not, the sum of exterior angles in a polygon is always 360°.

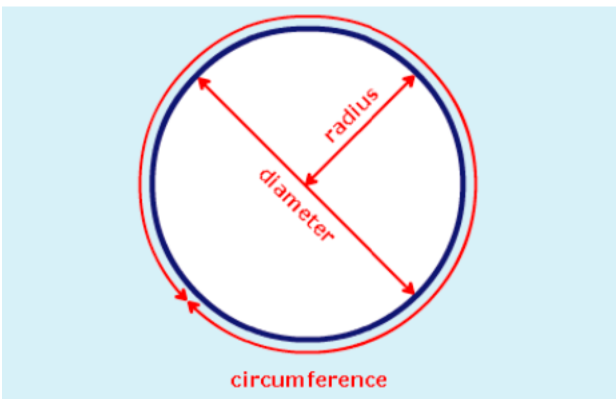


Interior and exterior angles along a straight line add up to 180°.

The interior angles add up to
triangle = 1 x 180° = 180°
quadrilateral = 2 x 180° = 360°
pentagon = 3 x 180° = 540°
hexagon = 4 x 180° = 720°
and so on...

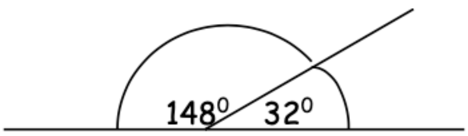
Parts of a circle

The circumference is the distance all the way around a circle.
The diameter is the distance straight across the middle of the circle, passing through the centre.
The radius is the distance halfway across the circle, starting at the centre.
The radius is always half the length of the diameter: d = 2r or r = ½ x d



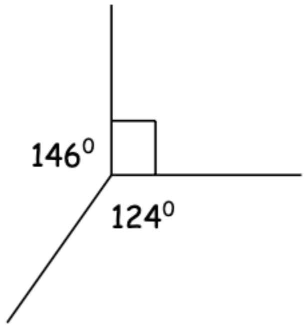
Angles and straight lines

Angles on a straight line add up to 180°



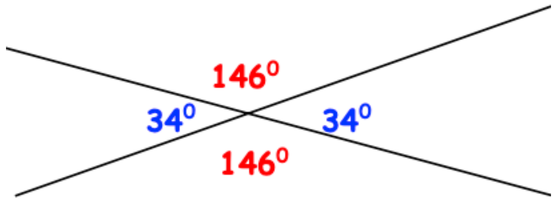
148° + 32° = 180°

Angles about a point add up to 360°



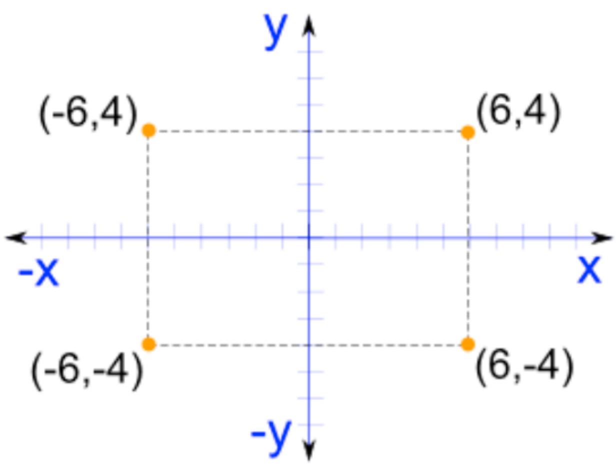
146° + 124° + 90° = 360°

Vertically opposite angles are equal



Position on a co-ordinate grid

Always read x before y (you crawl before you stand).



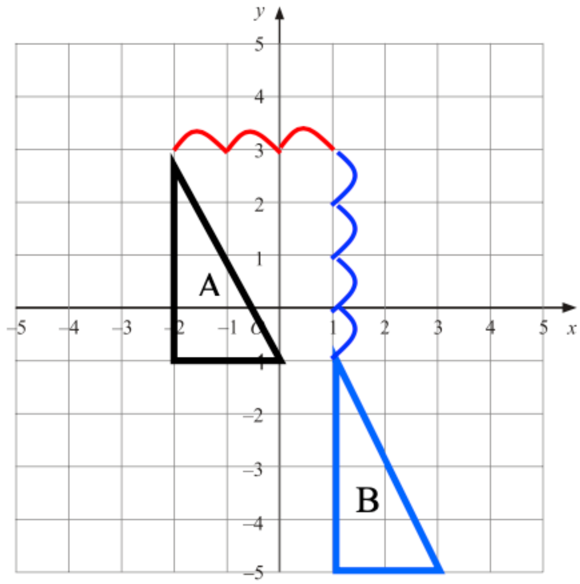
x is the horizontal axis.
y is the vertical axis.

Transformations

There are two forms of transformation that you learn about in KS2: translation and reflection.

In translation, a shape is moved along using directions (up, right, down or left; or north, east, south or west)

Move shape A 3 right and 4 down can also be written as a vector $\begin{pmatrix} 3 \\ -4 \end{pmatrix}$



Notice: the new shape faces the same direction and is the same size.

You must use a ruler when drawing the new shape.

You should be able to describe movements just using the coordinates too.

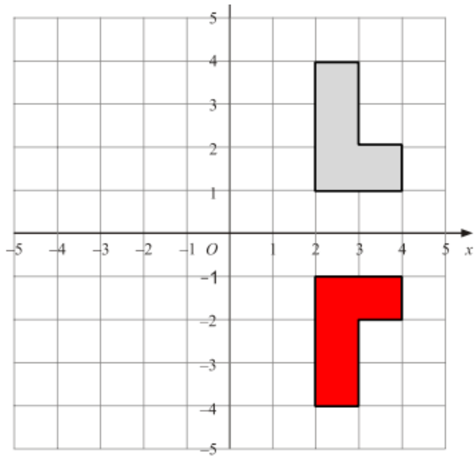
One of the coordinates for shape A is (-2, 3). Its new position is at (1, -1).

The x coordinate has changed from -2 to 1. This is 3 steps to the right.
The y coordinate has changed from 3 to -1. This is 4 steps down.

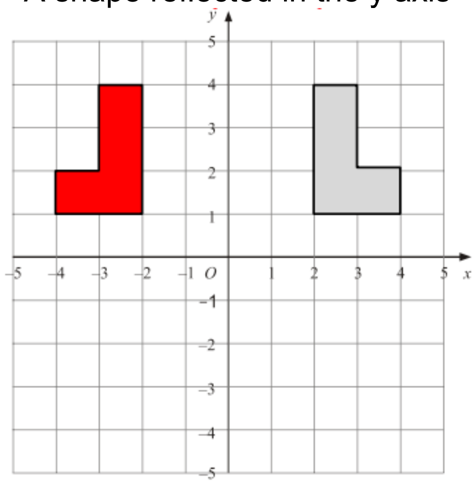
The **x coordinate changes** by moving **left** or **right.**
The **y coordinate changes** by moving **up** or **down**.

Reflecting a shape involves flipping the shape. Each vertex must be moved so they are in their opposite position across a given mirror line or coordinate line in the x or y axes.

A shape reflected in the x- axis



A shape reflected in the y axis

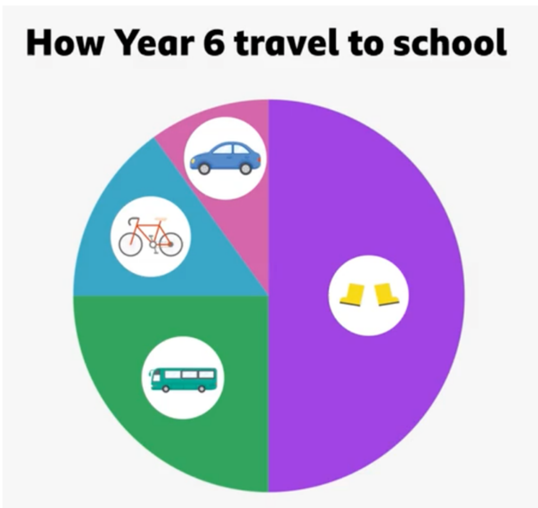


Graphs

Pie charts show data as a proportion of a whole.

The circle of a pie chart presents the whole, 360° and 100%.

Each part or slice represents part of the whole. Look out for recognisable slices: ½ (180°, 50%) and ¼ (45°, 25%).



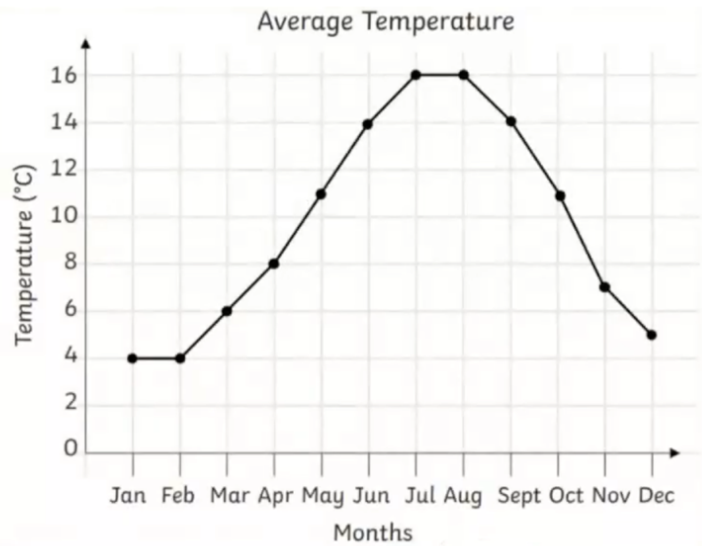
Here we can see that more children walk to school and that the smallest part shows that cars are the least used mode of transport.

If we know that there are 90 children in Y6, the whole pie chart represents those 90 children.
½ of the group walked to school so ½ x 90 = 45 children.

25% or ¼ of the group took the bus to school. This is approximately 23 children.
¼ of 90 is 22.5 and, since we can't have half a child, we round the number to 23.

If the number of children who cycled to school was 20% of the whole, how many children cycled to school?
20% of 90 = 18 children.

Line graphs show continuous data such as temperature, height, time or distance. Even the gaps between values are continuous in that the temperature gradually grows colder or hotter over time or a person gradually grows taller over time.



You need to recognise how the scale increases on the axes. It is useful to use a ruler when reading line graphs or draw supporting lines to help you answer the question.

The mean

The mean is usually known as the average.
It is a typical value of a set of data.

Find the mean speed of 6 cars travelling on a road.

Car 1 - 66mph
Car 2 - 57mph
Car 3 - 71mph mph = miles per hour
Car 4 - 54mph
Car 5 - 69mph
Car 6 - 58mph

Find the total of the numbers: 66 + 57 + 71 + 54 + 69 + 58 = 375
Divide the total by the number of values in the set. In this case, there are 6.
375 ÷ 6 = 62.5 mph

The mean average speed was 62.5mph.

Mean = total of values in the set ÷ **the number of values in the set.**