

Seven times tables

- $7 \times 1 = 7$
- $7 \times 2 = 14$
- $7 \times 3 = 21$
- $7 \times 4 = 28$
- $7 \times 5 = 35$
- $7 \times 6 = 42$
- $7 \times 7 = 49$
- $7 \times 8 = 56$
- $7 \times 9 = 63$
- $7 \times 10 = 70$
- $7 \times 11 = 77$

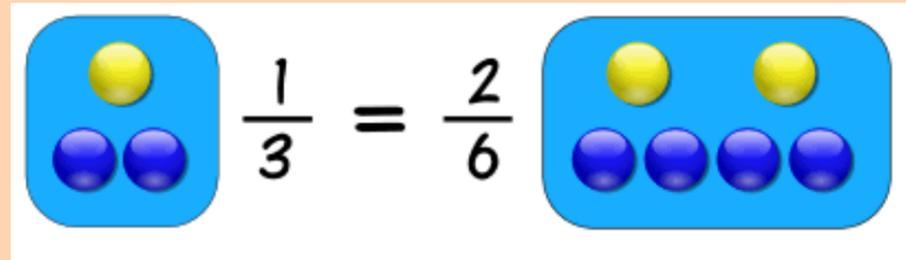
Ratio & Proportion

Ratio is a part to part comparison.
The ratio of a to b is usually written a : b.

You say the ratio 5:2 as “**five to two**”
This means for every 5 “**parts**” of one thing there are 2 “**parts**” of another

“ : ” is called a **colon**

“**Proportion**” is when two ratios or fractions are equal.



1:2

2:4

“For every one yellow there are two blues”
or “There are twice as many blues as yellows”

A “**Unit ratio**” is in the form 1:n. Ratios in the form 1:n are useful for making comparisons.

“**Factors**” of number are whole numbers that multiply to make that number. e.g. 1,2,3 and 6 are factors of 6 because $1 \times 6 = 6$ and $2 \times 3 = 6$

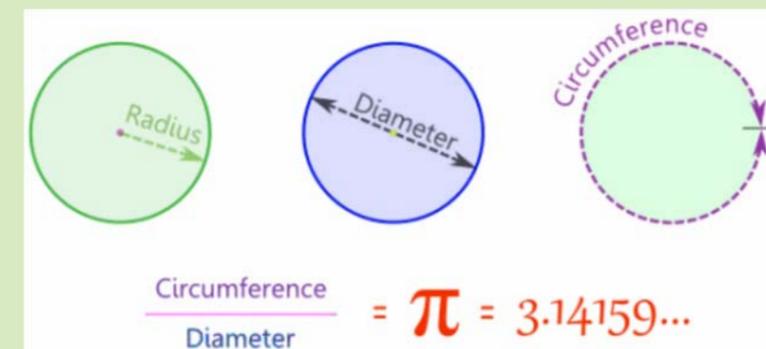
Circle

“**Perimeter**” means is the sum of the side lengths of a shape

“**Circumference**” is the perimeter of a circle

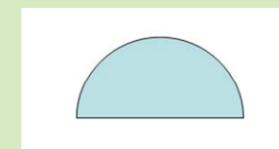
“**Diameter**” is a straight line passing from one side of the circle to the other through the centre”

“**Radius**” is the distance from the centre of the circle to the circumference. It is half the diameter.



π **Pi** is how many times bigger the circumference is compared to the diameter

$\pi = 3.14$ to two decimal places



“**Semi Circle**” is half a circle

“**Gradient**” is a measure of how steep a line is

Multiplicative change

“**Double**” means to multiply by 2

“**Treble**” means to multiply by 3

“**Currency**” is the money used by a country.

“**Sterling**” is the British currency

“**Conversion rate**” is the ratio between two currencies. e.g.

$$£1 = 90 \text{ Rupees}$$

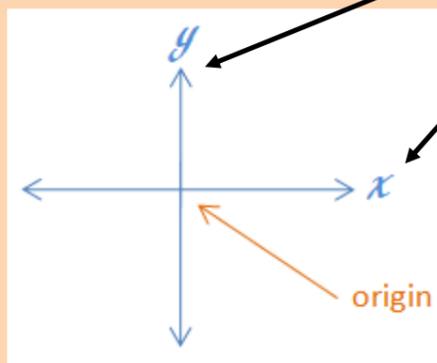


“**Similar**” shapes have corresponding sides proportional and corresponding angles equal

A “**Variable**” is a quantity that can take on a range of values, often denoted by a letter, x, y etc

Variable

$$4x - 7$$



Vertical axis is called the y-axis

Horizontal axis is called the x-axis

The **origin** is where the vertical and horizontal axes meet

Fractions 1

$$\frac{3}{5}$$

← numerator
← denominator

“**Product**” is the result when you multiply one number by another. Product of 4 and x is 4x

“**Integers**” are whole numbers, eg 4, 270, -6.

They are not decimals or fractions

$\frac{1}{3}$, $\frac{1}{100}$, $\frac{1}{21}$ are examples of “**Unit Fractions**”. This where the numerator is one and the denominator is a positive integer

A “**Non unit fraction**” are fractions where the numerator is greater than 1

e.g. $\frac{2}{3}$, $\frac{47}{100}$, $\frac{6}{21}$

“**Commutative**” is where a calculation can be done in any order to give the same result e.g. $5 \times 4 = 4 \times 5$ $6 + 3 = 3 + 6$

$\frac{1}{2}$	Half	$\frac{1}{3}$	Third	$\frac{1}{4}$	Quarter	$\frac{1}{5}$	Fifth
$\frac{1}{6}$	Sixth	$\frac{1}{7}$	Seventh	$\frac{1}{8}$	Eighth	$\frac{1}{9}$	Ninth
$\frac{1}{10}$	Tenth						

Fractions 2

“**Quotient**” is the answer you get when you divide one number by another

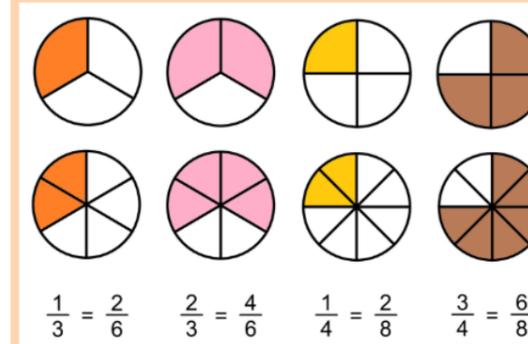
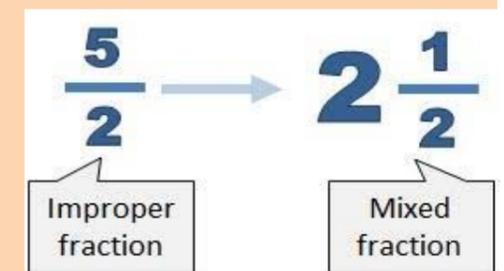
$$\begin{array}{r} \text{Dividend} \\ 42 \\ \underline{6} \\ 7 \\ \text{Divisor} \end{array} = 7 \text{ Quotient}$$

“**Reciprocal**” is one of a pair of numbers that when multiplied together equals 1

e.g. Reciprocal of 3 is $\frac{1}{3}$ because $3 \times \frac{1}{3} = 1$

“**Mixed fraction**” is made up of an integer and a fraction

“**Improper fraction**” is where the numerator is bigger than the denominator



“**Equivalent fractions**” are fractions with the same value of each other.

“**Common denominators**”

are when two or more fractions have the same denominator

“**Expressions**” are made up of terms which may include letters, number and operators

e.g. ab^2 , $ab + 5$ and $4d - 5$