

Knowledge Organiser - Maths

Key Vocabulary

numerator	the number above the line in a fraction.
denominator	the number below the line in a fraction.
equivalent	equal in value or amount.
clock	clock is a device used to tell time. Moving hands on the face of a clock point to the current hour, minute, and second. ... A clock can also be small enough to fit on a person's wrist, where it is called a watch.
analogue	an analogue clock is a circular-faced clock with the numbers one to twelve around the outside and two hands, a shorter one to measure hours and a longer one to measure minutes.
digital	a digital clock is a clock which simply shows numbers to show the time. It is usually battery or electricity powered.

Key Facts - Time

	13:00	1 p.m.	1 o'clock	
	14:00	2 p.m.	2 o'clock	
	15:00	3 p.m.	3 o'clock	
	16:00	4 p.m.	4 o'clock	
	17:00	5 p.m.	5 o'clock	
	18:00	6 p.m.	6 o'clock	
	19:00	7 p.m.	7 o'clock	
	20:00	8 p.m.	8 o'clock	
	21:00	9 p.m.	9 o'clock	
	22:00	10 p.m.	10 o'clock	
	23:00	11 p.m.	11 o'clock	
	00:00	12 a.m.	12 o'clock	

Minute Hand
The long hand points to the minutes past or the minutes to the hour.

Hour Hand
The short hand points to the hour. If this hand is pointing between hours, it is either past the earlier hour or to the later hour.

There are 24 hours in a day.

midnight 12:00 a.m. a.m. morning

p.m. 12:00 p.m. midday

evening/night time

Start **Duration** **End**

20 minutes has passed.

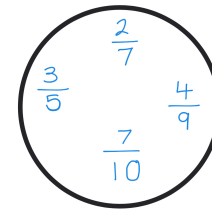
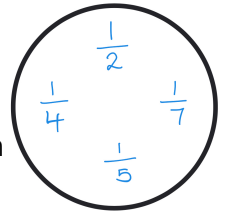
There are 60 seconds in an minute. There are 60 minutes in an hour.

Key Facts - Fractions

The fraction one-tenth is the whole divided into ten equal parts. $1 \div 10 = 0.1$ so one-tenth is equivalent to 0.1 when written as a **decimal**.

Model	Fraction	Decimal	Word Form
	$\frac{1}{10}$	0.1	one tenth
	$\frac{2}{10}$	0.2	two tenths
	$\frac{3}{10}$	0.3	three tenths
	$\frac{4}{10}$	0.4	four tenths
	$\frac{5}{10}$	0.5	five tenths
	$\frac{6}{10}$	0.6	six tenths
	$\frac{7}{10}$	0.7	seven tenths
	$\frac{8}{10}$	0.8	eight tenths
	$\frac{9}{10}$	0.9	nine tenths
	$2 \frac{2}{10}$	2.2	two and two tenths

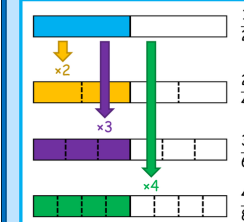
A **unit fraction** is any **fraction** with 1 as its numerator (top number), and a whole number for the denominator (bottom number).



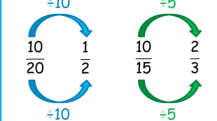
A **non-unit fraction** is a **fraction** where the numerator (the number on the top half of the **fraction**) is greater than 1.

Equivalent fractions

You can find equivalent fractions quickly by multiplying the numerator and denominator by the same number.

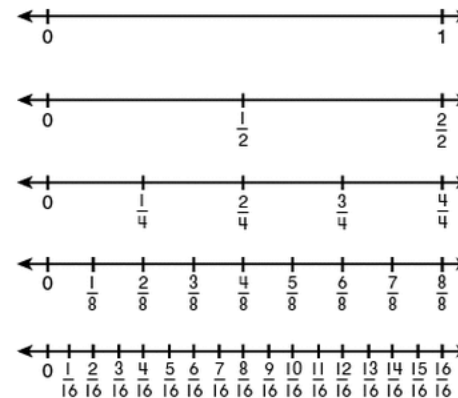


To cancel a fraction to its simplest form, divide the numerator and denominator by the same amount.



Top Tip
Learn your times tables thoroughly to make simplifying fractions easier to do.

A number line is a great way of seeing the order that fractions go in and allows us to compare fractions. It works in the exact same way as a normal number line, but the numerators are the numbers that increase or decrease, while the denominators stay exactly the same.



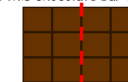
Equivalent fractions

Two fractions are equivalent if they represent the same proportion of a whole, or the same sized portion of the original.

Here is a chocolate bar with 12 squares.



I could break this chocolate bar in half:



Each share is $\frac{1}{2}$ of the bar.

Each share is $\frac{6}{12}$ pieces. $\frac{1}{2} = \frac{6}{12}$

If I broke each half in half again:



Each share is $\frac{1}{4}$ of the bar.

Each share is $\frac{3}{12}$ pieces. $\frac{1}{4} = \frac{3}{12}$