

Maths, Year 5, Spring 2



What I will know by the end of the Spring 2 term

Arithmetic 1	<p>I can use a grid for long multiplication with up to 2 digit by 2 digit whole numbers.</p> <p>I can use a grid for long multiplication with up to 3 digit by 2 digit decimal numbers (up to 3 decimal place answers).</p>
Geometry	<p>I know that vertically opposite angles have the same value.</p> <p>I can recognise corresponding angles and know that they have the same value.</p>
Data & Measure	<p>I can interpret a distance-time graph.</p> <p>I can draw a distance- time graph from given information.</p> <p>I can round numbers up to 7 digits including 3dp.</p>
Arithmetic 2	<p>I can identify and investigate prime numbers using Eratosthenes' sieve (0-59).</p> <p>I can write numbers as a product of their prime factors e.g. $3 \times 2 \times 5 = 30$.</p>
Reasoning	<p>I can solve puzzles by calculating quantities.</p> <p>I can carry out whole investigations involving shape, numbers and real life situations using the 'What if Not' approach.</p>
Additional Coverage	<p>I can name and draw special triangles e.g isosceles, right angle.</p> <p>I can count up and down in steps of fractions.</p> <p>I can order fractions using a number line.</p>

Prime Numbers

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Adding and Subtracting Decimals

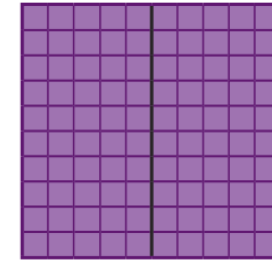
$$0.8 + 0.001 = 0.801$$

$$1.031 - 0.23 = 0.801$$

$$0.4005 + 0.4005 = 0.801$$

Equivalent Fractions

To find equivalent fractions, we multiply or divide the numerator and denominator by the same number.

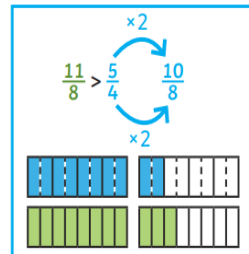
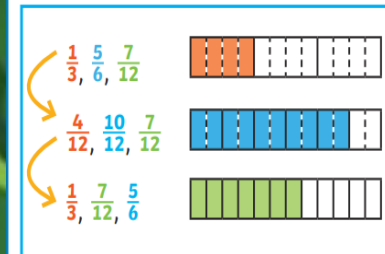


$$\frac{1}{2} \xrightarrow{\times 5} \frac{5}{10} \xrightarrow{\times 10} \frac{50}{100}$$

$$\frac{50}{100} \xrightarrow{\div 10} \frac{5}{10} \xrightarrow{\div 5} \frac{1}{2}$$

Compare and Order Fractions

We can compare and order fractions by using common denominators.



Identifying Angles

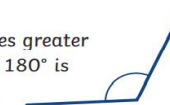
Acute Angles

Any angle that measures less than 90° is called an **acute** angle.



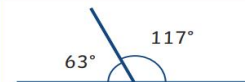
Obtuse Angles

Any angle that measures greater than 90° and less than 180° is called an **obtuse** angle.

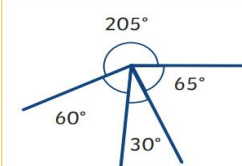


Reflex Angles

Any angle that measures greater than 180° is called a **reflex** angle.



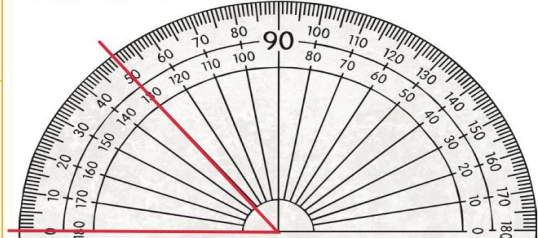
Angles on a straight line always total 180° .



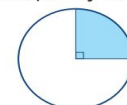
Angles around a point always total 360° .

Measuring and Drawing Angles

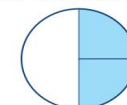
To measure angles, we use a protractor. Look carefully at how the numbers on the scale count from 0° to 180° in both directions.



Multiples of 90° can be used as descriptions of a turn.



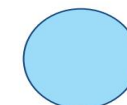
$\frac{1}{4}$ turn - 90°



$\frac{1}{2}$ turn - 180°



$\frac{3}{4}$ turn - 270°



1 turn - 360°

Useful Links

<https://www.mymaths.co.uk/>

<https://play.ttrockstars.com/auth/school/student/64764>

<https://www.bbc.co.uk/teach/supermove/ks2-maths-collection/z7frpg8>

<https://home.oxfordowl.co.uk/maths/primary-multiplication-division/help-with-times-tables/>

Multiply each of the digits 354 by 9

$9 \times 4 = 36$

Carry the 3 below

$9 \times 5 = 45$

Add the carried 3 = 48

Carry the 4 below

$9 \times 3 = 27$

Add the carried 4 = 31

This totals = 3186

Multiply each of the digits by 2

Add the zero first!

$2 \times 4 = 8$

$2 \times 5 = 10$

Carry the 1 below

$2 \times 3 = 6$

Add the carried 1 = 7

This totals = 7080

Add the two totals together

$3186 + 7080 = 10266$

Read and Interpret Line Graphs

Here is a line graph showing the average temperature for each month.

The y-axis shows temperature in intervals of 2°C on a scale of 0°C to 16°C .

The points show the average temperature for each month.

The x-axis shows the months of the year.

Use Line Graphs to Solve Problems

To find the average temperature in May, follow the arrow up from May and across to the temperature. As this is halfway between 10°C and 12°C , the average temperature in May is 11°C .

To find the difference between the average temperatures in August and in November, find the temperature for each month and calculate the difference between the two. The shape of the line graph can show how the temperature changed. The average temperature falls 9°C from August to November.

Draw Line Graphs

Here is a table showing the number of different types of fruit sold each day.

	Bananas	Apples
Mon	2	3
Tues	4	5
Wed	6	2
Thurs	5	4
Fri	8	1

This graph can be used to represent the data from the table.

Mark each point for the number of bananas sold each day and join each point with a line.

Mark each point for the number of apples sold each day and join each point with a line.

Useful Vocabulary:	
Line graph	A line graph is a type of chart used to show information that changes over time.
Average	A number which shows the central, or typical, value in a set of data. Types of average include- range, mode, median and mean.
Interpret	To explore, understand and explain the meaning of information.
Obtuse angle	An angle which is greater than 90° but less than 180° .
Reflex angle	An angle which is greater than 180° but less than 360° .
Decimal point/ place	A decimal point is a point or dot used to separate the whole part of a number from the fractional part.
Duration	The time during which something exists or lasts.

Order and Compare Numbers with Three Decimal Places

Ones	Tenths	Hundredths	Thousandths
0	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
2	$\frac{1}{10}$		$\frac{1}{1000}$
0		1	3

Ones	Tenths	Hundredths	Thousandths
1		$\frac{1}{100}$	$\frac{1}{1000}$
		$\frac{1}{100}$	$\frac{1}{1000}$
1	0	2	2

Ones	Tenths	Hundredths	Thousandths
2	$\frac{1}{10}$		$\frac{1}{1000}$
1			$\frac{1}{1000}$
		0	3