

# Maths, Year 5, Summer 2



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

Arithmetic 1	<p>I can use derived products to calculate multiplications e.g. <math>4 \times 6 = 24</math> so 4 tenths <math>\times 6 = 24</math> tenths.</p> <p>I can multiply decimal numbers by multiples of powers (up to 3 d.p.).</p> <p>I can use derived products to calculate divisions.</p> <p>I can divide decimal numbers by multiples of powers (up to 3 d.p.).</p>
Geometry	<p>I can recognise, name and sketch polygons, including various special triangles and quadrilaterals.</p> <p>I can compare angles using <math>&lt;</math> <math>&gt;</math> and <math>=</math></p>
Data & Measure	<p>I can solve problems involving speed, distance and time (using a double number line).</p> <p>I can convert between fractions, decimals and percentages.</p> <p>I can identify common factors, multiples and prime numbers.</p>
Arithmetic 2	<p>I can evaluate terms in an expression that includes brackets.</p> <p>I can insert brackets in an expression so it has a specified value e/g/ <math>2 \times 5 + 1 + 2</math> to equal 16.</p>
Reasoning	<p>I can calculate time durations by interpreting information in a grid.</p> <p>I can calculate equivalences and fractions of periods in time.</p>
Additional Coverage	<p>I can convert between fractions.</p> <p>I can add and subtract decimals finding compliments of 1.</p>

## Useful Links

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

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

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

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

## Identifying Angles

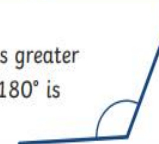
### Acute Angles

Any angle that measures less than  $90^\circ$  is called an **acute** angle.



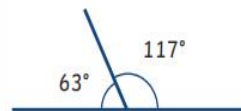
### Obtuse Angles

Any angle that measures greater than  $90^\circ$  and less than  $180^\circ$  is called an **obtuse** angle.

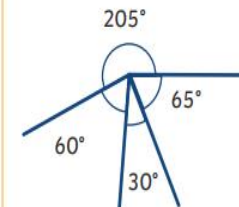


### Reflex Angles

Any angle that measures greater than  $180^\circ$  is called a **reflex** angle.



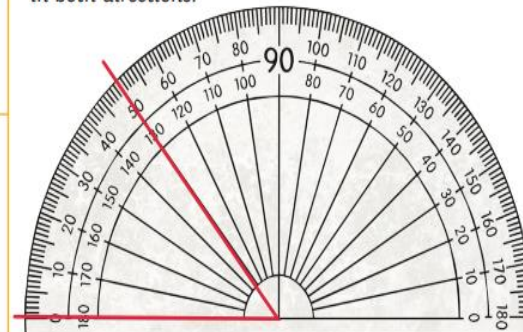
Angles on a straight line always total  $180^\circ$ .



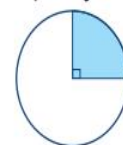
Angles around a point always total  $360^\circ$ .

## Measuring and Drawing Angles

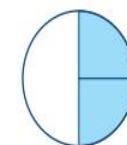
To measure angles, we use a protractor. Look carefully at how the numbers on the scale count from  $0^\circ$  to  $180^\circ$  in both directions.



Multiples of  $90^\circ$  can be used as descriptions of a turn.



$\frac{1}{4}$  turn =  $90^\circ$



$\frac{1}{2}$  turn =  $180^\circ$



$\frac{3}{4}$  turn =  $270^\circ$



1 turn =  $360^\circ$

## Related Calculations

$$8 \times 9 = 72$$

$$80 \times 9 = 720$$

$$9 \times 8 = 72$$

$$90 \times 8 = 720$$

$$72 \div 9 = 8$$

$$720 \div 9 = 80$$

$$72 \div 8 = 9$$

$$720 \div 8 = 90$$

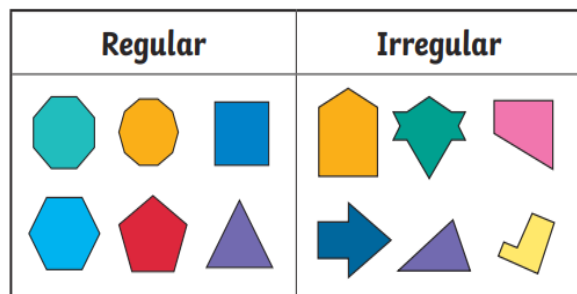
A common factor is a factor of 2 or more numbers.



## Prime Numbers

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

## Regular and Irregular Polygons



A polygon is any two-dimensional shape formed with straight lines.

In a regular polygon, all the sides and angles are equal.

In an irregular polygon, the sides and angles are not equal.

## Multiplying and Dividing by 10, 100 and 1000

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
$\div 10$		3	8	
3	8			
		$\times 10$		
3	8			

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
$\div 100$		3	8	
3	8			
		$\times 100$		
3	8			

Tens	Ones	Tenths	Hundredths	Thousandths
3	8			
$\div 1000$		3	8	
3	8			
		$\times 1000$		
3	8			

## Simplify Fractions

$$\frac{9}{12}$$

Factors of 9:  
1, 3, 9

Factors of 12:  
1, 2, 3, 4, 6, 12

$$\frac{9}{12} = \frac{3}{4}$$



## Compare and Order Fractions

Use the Common Denominator



Multiples of 5:  
5, 10, 15



Multiples of 3:  
3, 6, 9, 12, 15

$$\frac{3}{5} = \frac{9}{15}$$

$$\frac{9}{15} < \frac{10}{15}$$

$$\frac{2}{3} = \frac{10}{15}$$



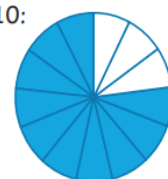
Use the Common Numerator



Multiples of 5:  
5, 10, 15

$$\frac{5}{8} = \frac{10}{16}$$

Multiples of 10:  
10, 20



$$\frac{10}{16} < \frac{10}{13}$$

$$\frac{10}{13} = \frac{10}{13}$$



## Useful Vocabulary:

Expression	A Maths Story with a minimum of two numbers and at least one maths operation ( +, -, x, or ÷ ).
Polygon	A flat, two-dimensional (2D) shape with straight sides that are fully closed.
Common factor	A whole number which is a factor of two or more numbers.
Prime number	A positive, whole number that is only divisible by 1 and itself.
Percentage	A percentage is a <b>part of a whole</b> . It expresses a part of a whole number as parts out of 100. A percentage is shown by the symbol %.
Duration	The time during which something exists or lasts.

