Maths
Year Group: 6

Place Value

10,000,000s	1,000,000s	100,000s	10,000s	1000s	100s	10s	1
10 millions	millions	hundred thousands	ten thousands	thousands	hundreds	tens	ones
8	7 ,	5	3	1 ,	4	6	9

eighty seven million, five hundred thirty one thousand, four hundred sixty nine

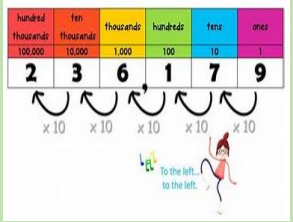
Read, write and order numbers up to 10,000,000.

Use negative numbers in context

Round any number to the nearest 100,000, 10,000, 1000, 100 and 10.

315 →	320	Nearest 10
455 →	500	Nearest 100
1595 →	2000	Nearest 1000

Multiply and divide by 10, 100, 1000 including decimals



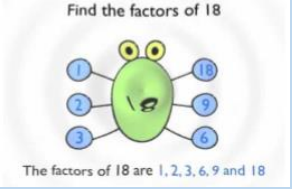
Number Knowledge

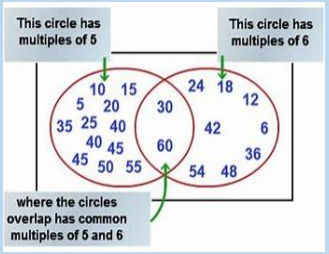
Know prime numbers and prime factors

Identify **common multiples and common factors.**

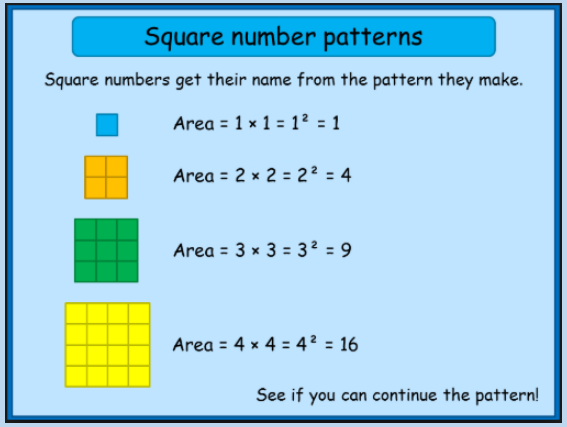
Multiples are all the numbers in a times table.
Eg. The multiples of 2 are all the numbers in the 2 times table: 2, 4, 6, 8, 10 and so on.

Factors: Numbers that you can divide a bigger number by e.g.





Recognise and use squared and cubed numbers



What's the missing number?

$$4 \times d = 12$$
$$d = 3$$

Calculation

Add and **subtract** any 1000s number from any 5-digit number.

$$\begin{array}{r} 58,391 \\ +\ 27,431 \\ \hline 85,822 \end{array}$$

	~~8~~ ^{7}	^{1}6	.	~~3~~ ^{2}	^{1}0
-	1	9	.	0	4
	6	7	.	2	6

Multiply numbers up to 4-digits by a 1-digit and 2-digit number using an efficient written method.

$$\begin{array}{r} 2826 \\ \times\ \ 8 \\ \hline 22608 \\ 624 \end{array}$$

$$\begin{array}{r} 132 \\ \times\ \ 12 \\ \hline 264 \\ +\ 1320 \\ \hline 1584 \end{array}$$

264 → multiply by 2
1320 → multiply by 10

Divide numbers up to 4-digits by a 2-digit number using short division written method.

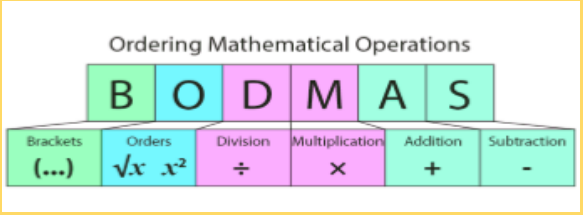
526 ÷ 25 =?

$$\begin{array}{r} 21 \\ 25\overline{)526} \\ -\ 50\downarrow \\ \hline 26 \\ -\ 25 \\ \hline 1 \end{array}$$

Answer: 526 ÷ 25 = 21 r 1

$$\begin{array}{r} 14.6 \\ 35\overline{)511.0} \\ 16 \\ \hline 21 \end{array}$$

Ordering operations to carry out calculations



Maths
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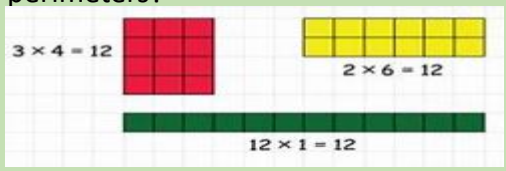
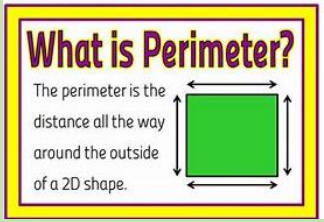
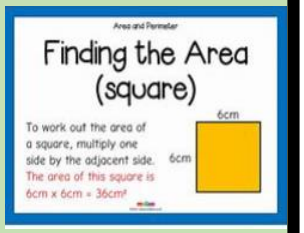
Shape

Perimeter and area

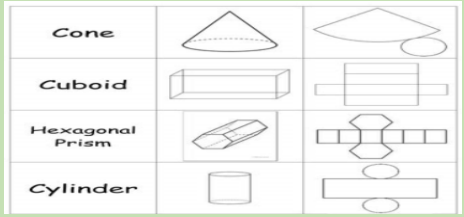
What is the perimeter and area of these shape? Can some shapes have the same area and different perimeters?



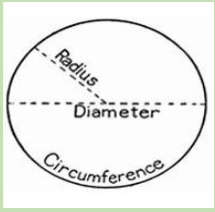




Nets

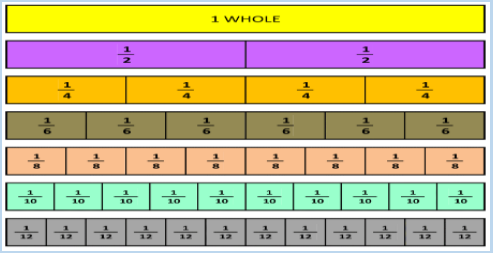


Parts of a circle

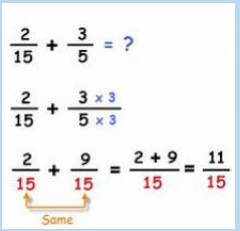


Fractions, decimals, percentages

Use equivalent fractions to compare and order fractions. Order fractions greater than 1. Simplify fractions.



Add and subtract fractions



Multiply two fractions

Divide fractions by whole numbers

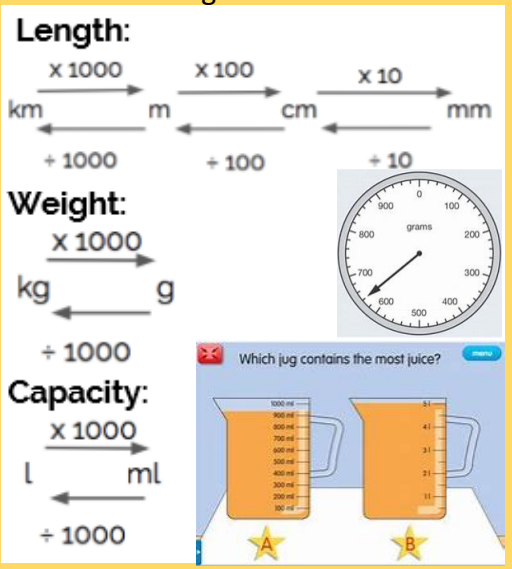
$$\frac{1 \rightarrow 20 \rightarrow 20}{2 \rightarrow 18 \rightarrow 36}$$

Write decimals as fractions and percentages

Percentage	Fraction	Decimal
100%	1	1
75%	3/4	0.75
66.66%	2/3	0.66
50%	1/2	0.50
33.33%	1/3	0.33
25%	1/4	0.25
20%	1/5	0.20
12.5%	1/8	0.125
10%	1/10	0.10
5%	1/20	0.05
2.5%	1/40	0.025

Measure

Converting measurements



Angles

Acute - Less than 90°
Straight Line - 180°
Obtuse - Greater than 90° and less than 180°
Reflex - Greater than 180°, but less than 360°
Full Rotation - 360°
Angles in a quadrilateral - 360°
Angles in a triangle - 180°
Angles around a point - 360°