

Reading and Writing Large Numbers

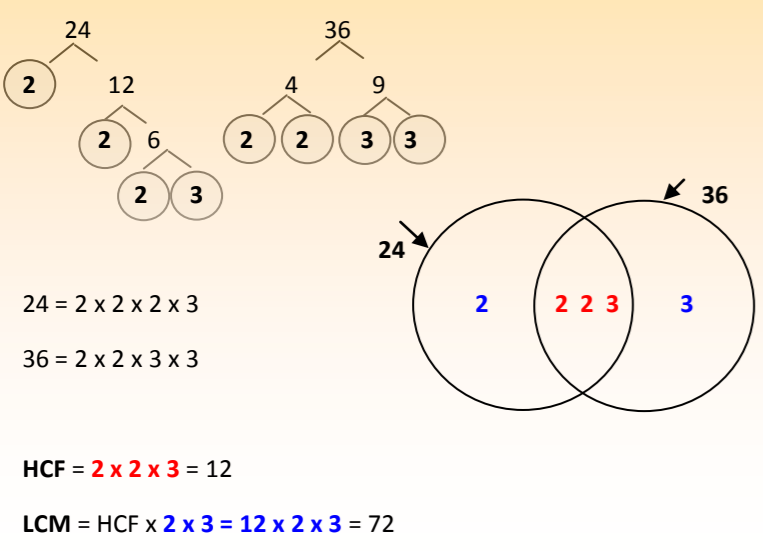
Millions			Thousands			H	T	U	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
H	T	U	H	T	U	H	T	U	.	$\frac{1}{10}$	$\frac{1}{100}$	$\frac{1}{1000}$
	4	3	0	0	5	2	0	3	.	6		

Reading in groups of 3 we have:-
 43 millions, 5 thousands, 2 hundred and 3 point 6
 Multiplying by 10, moves the digits **one** place to the left (430 052 036)
 Dividing by 10, moves the digits **one** place to the right (4 300 520.36)
 Multiplying or dividing by 100 moves the digits **two** places and
 Multiplying or dividing by 1000 moves the digits **three** places

Metric Units

Length	Mass	Capacity	Common Conversions
10mm = 1cm		10ml = 1cl	1 kg = 2.2 lbs
100cm = 1m		100cl = 1l	5 miles = 8km
1000m = 1km	1000g = 1kg	1000ml = 1l	1l = 1000 cm ³

HCF and LCM (Product of Prime Factors)



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FOUNDATION TIER—REVISION

Vocabulary

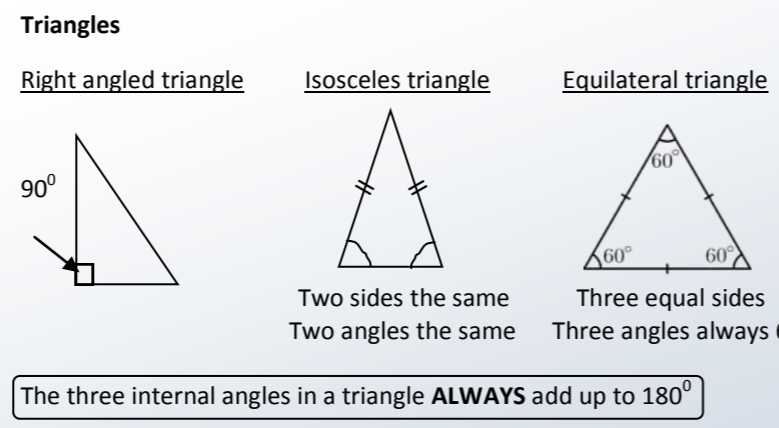
Factor—Divides exactly into a number eg 3 is a factor of 12
Multiple—In the times tables of a number eg 24 is a multiple of 8
Square number—A number which can be written as the product of 2 equal factors eg 25 is a square number since 25 = 5 x 5
Prime number—A number which only has 2 factors, 1 and itself
Sum—Result of adding two or more numbers
Product—Result of multiplying two or more numbers
Estimate—Round the numbers first and give an approx. answer
Correlation—The relationship between 2 variables

Probability

A pack of playing cards contains:-
 52 cards split into 4 suits
 (hearts, diamonds, spades & clubs)
 13 cards in each suit, so 26 red cards and 26 black

When flipping a fair coin
 $P(H) = P(T) = \frac{1}{2}$

When rolling a fair dice
 $P(1)=P(2)=P(3)=P(4)=P(5)=P(6) = \frac{1}{6}$



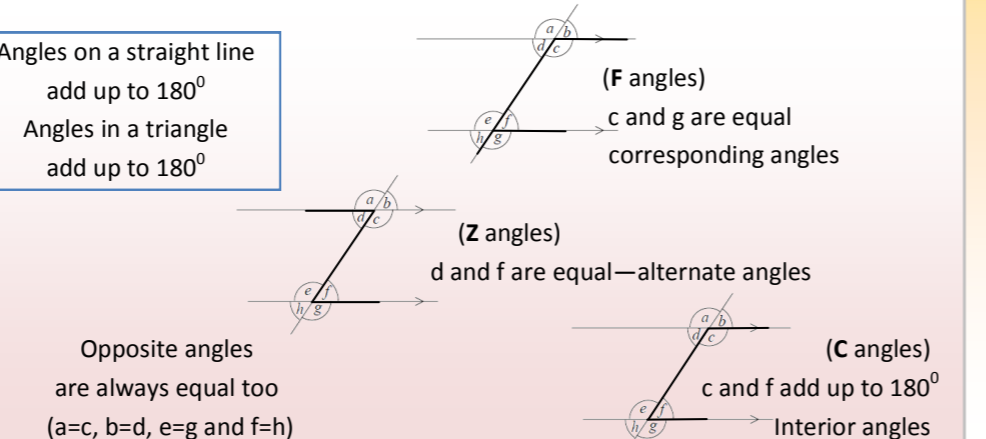
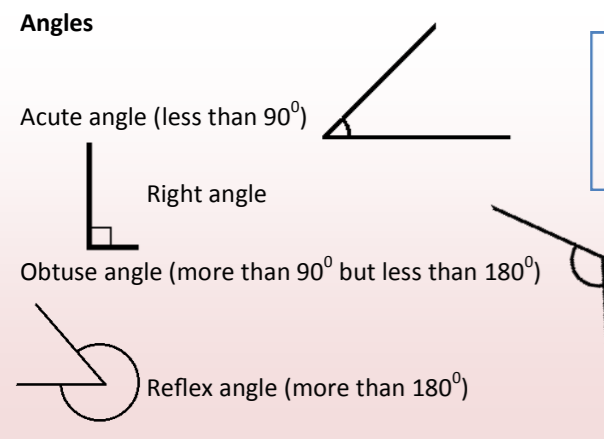
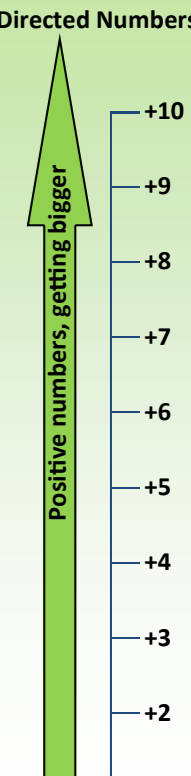
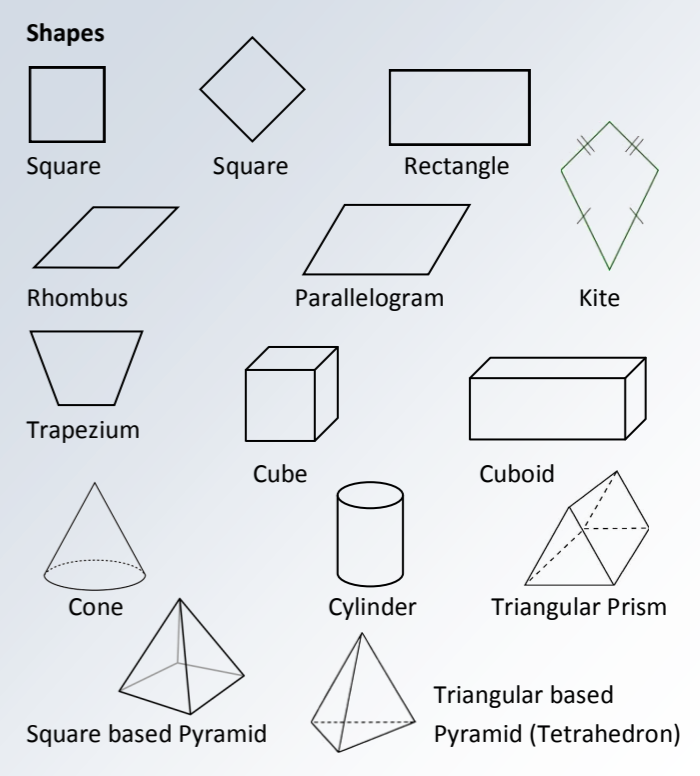
Averages and Spread

Hey Diddle Diddle,
 The **MEDIAN** is the middle.
 You add then divide for the **MEAN**.
 The **MODE** is the one that you see the most
 And the **RANGE** is the difference between.

Equivalent Percentages, Decimals and Fractions

50%	= 0.5	= $\frac{1}{2}$	Divide by 2
25%	= 0.25	= $\frac{1}{4}$	Divide by 4
10%	= 0.1	= $\frac{1}{10}$	Divide by 10
1%	= 0.01	= $\frac{1}{100}$	Divide by 100

Percentage means ... Parts out of 100

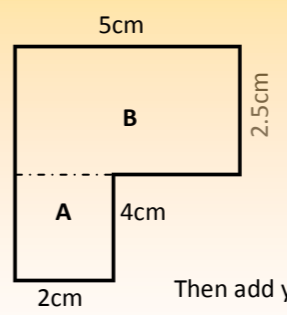


Perimeter, Area and Volume

Perimeter is the distance around the edge
 Add the measurements all around the edge
 Measured in mm, cm, m or km

Area is the space inside a 2D shape
 Length x Width
 Measured in mm², cm², m² or km²

Volume is the capacity inside a 3D shape
 Length x Width x Height
 Measured in mm³, cm³, m³ or km³

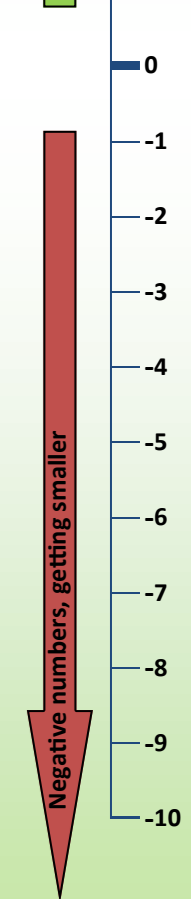


Composite Shapes

Perimeter—remember to calculate the unknown sides first, then add together
 $2 + 4 + 3 + 2.5 + 5 + 6.5 = 23\text{cm}$

Area—Split into 2 rectangles
 $A = 2 \times 4 = 8\text{cm}^2$ $B = 5 \times 2.5 = 12.5\text{cm}^2$
 Then add your areas together $8 + 12.5 = 20.5\text{cm}^2$

Volume—Split into cuboids, find volume of each, then add together



B **I** **D** **M** **A** **S**
() **x²** **÷** **x** **+** **=**

Algebra

Simplify $3a + 2a = 5a$
 (gather together "Like" terms)

Expand and simplify $4(3y - 2) = 12y - 8$
 (multiply out the bracket and then gather together "Like" terms)

Factorise $30 - 24b = 6(5 - 4b)$
 (put the brackets back in)

Solve $3x + 7 = 22$ so $3x = 15$ and $x = 5$
 (find the value of x)