Knowledge Organiser Y9 Foundation – Maths - Number

Key	Definition/Tips	Example
vocabulary		
Integer	A whole number that can be	-3, 0, 92
Decimal	A number with a decimal	37094-2407
Decima	point in it. Can be positive or	5.7, 0.71, 21.07
	negative.	
Negative	A number that is less than	-82.5
Number	zero . Can be decimals.	0, 10
BIDMAS	An acronym for the order you	$6 + 3 \times 5 = 21$, not 45
	should do calculations in.	,
	BIDMAS stands for	$5^2 = 25$, where the 2 is the index/power.
	'Brackets, Indices, Division,	
	Multiplication, Addition and	$12 \div 4 \div 2 = 1.5, not 6$
	Subtraction'.	
	Indices are also known as	
	powers' or 'orders'.	
	With strings of division and	
	addition and subtraction and	
	no brackets work from left to	
	right.	
Prime	Prime numbers are special	2, 3, 5, 7, 11, 13, 17, 19
Numbers	numbers, greater than 1, that	
	have exactly two factors,	2 x 1 = 2, 3 x 1 = 3 etc
	themselves and 1.	
Factors	Factors are numbers that	For example, the factors of 8 are: 1, 2, 4, 8
	divide exactly into another	Factors can be shown in pairs. Each pair
	number.	multiplies to make 8.
Multinles	Multiples are just extended	The multiples of 2 are all the numbers in the 2
Manipics	times tables.	times table such as 2 4 6 8 10 and so on
LCM	The lowest/least common	For example, the common multiples of 4 and 5
	multiple (abbreviated to	are 20, 40, 60, 80 and so on.
	LCM) is the lowest number	These are the numbers that are multiples
	that is a multiple of two or	of both 4 and 5.
	more subject-numbers.	I he LCM is therefore 20, as this is the lowest of
	A common factor is	an the common multiples.
	a factor that is shared by two	1 2 and 4 The highest common factor is 4
	or more numbers. For	
	example, a common factor of	
	8 and 10 is 2, as 2 is a factor	
	of 8, and 2 is also a factor of	
	10. The highest common	
	factor (HCF) is found by	
	finding all common factors of	
	two numbers and selecting	
	ine largest one.	

Finite factorsFinite factors are factors for a number that are, themselves, prime numbers.The most common is to use prime factor free.numbersnumber that are, themselves, prime numbers.if a prime factor free.squaredA square number is a number $x = 2 \times 2 \times 2 = 4$ also be called 'a number squared'. The symbol for squared is *. $2^3 = 2 \times 2 \times 2 = 8$ CubeA cube number is a number cubed'. The symbol for cubed is *. $2^3 = 2 \times 2 \times 2 = 8$ NumbersA cube number is a number cubed'. The symbol for cubed is *. $2^3 = 2 \times 2 \times 2 = 8$ FunctionA function machine is a way of writing rules using a flow diagram. $2^3 = 2 \times 2 \times 2 = 8$ RoundingUsing decimal places(dp), the degree of accuracy that is required is usally given.Round 248.561 to one and two decimal places is 248.6RoundingMonther way of rounding numbers is to count only the figures and it's often used with larger numbers, or very small numbers.Round 248.561 to two and 3 significant figures is 2 (first 1 numbers)MultiplyingMultiplying decimals works the same way as <u>dividing whole</u> $3^1 4 \times 4 = 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 12^1 1 + 13^1 4 + 680 + 12^1 1 + 12^1 1 + 13^1 4 + 680 + 12^1 1 + 12^1 1 + 13^1 4 + 13^1 4 + 13^1 1 $	Drime festers	Drime feature are fasters of a	The most common is to use prime fasteriation
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the decimal points.		the decimal points.	
		pp	1

Knowledge Organiser Y9 Maths: Unit 2 Algebra

Key vocabulary	Definition/Tips	Example
1. Expression	A mathematical statement written	3x + 2 or 5y ²
	using symbols, numbers, or letters	
2. Equation	A statement showing that two	2y – 17 = 15
	expressions are equal	
3 Identity	An equation that is true for all	$2x \equiv x + x$
	values of the variables	
1 Formula	An identity uses the symbol: =	Area of a rectangle = length x
4.1011101	two or more variables	width or $A = L \times W$
5. Collecting	An algebraic expression may	
	To reduce the number of terms in	4x - 2x + 8 + 3x - 1
	the expression, like terms are added	
	or subtracted.	4x + 3x - 2x + 8 - 1
6. Function	A function relates an input to an	
Machines	output. One or more operations are	
	applied to an input to give an output.	input - x 3 - output
	input.	
		input — ÷ 3 — output
	An input value becomes an output value when the operations of a	
	function machine are worked	
	through from left to right.	
	An input value can be found from	
	the output when the inverse	
	operations are worked through	
	from right to left .	
7. Substitution	Replace letters with numbers.	a = 3, b = 2 and $c = 5$. Find: 1, 2a = 2 × 3 = 6
	Be careful of $5x^2$. You need to	2. $3a - 2b = 3 \times 3 - 2 \times 2 = 5$
	square first, then multiply by 5.	3. $7b^2 - 5 = 7 \times 2^2 - 5 = 23$
8. The order of	The order of operations is the	BIDMAS is an acronym used to tell
operations	equation to give you the correct	equation when there are different
	answer.	operations.

		BIDMAS stands for B rackets, Indices, D ivision, M ult iplication, A ddition, S ubtraction.
9. Expanding brackets	To expand a single bracket , each term inside the bracket is multiplied by the expression outside the bracket.	Expand 3(a + 3) = 3xa + 3x3 (simplify) = 3a + 9
10. Factorising	To factorise an expression, rewrite it as a product of factors.	Factorise 10 + 4x (both have a common factor of 2) 2 x 5 + 2 x 2x Hence Factorised 2(5 + 2x)

Knowledge Organiser Y9 Maths: Unit 3 Graphs, tables and charts

Key vocabulary	Definition/Tips	Example
Data Collection	Collecting data is when you gather information in mathematics which you can then organise and analyse to answer questions.	Number of brids Yally Number of children 0
Discrete	Quantitative data which can only take specific values such as shoe size.	Shoe size 2, 2.5, 3, 3.5 etc
Continuous	Quantitative data which can take any value such as time.	Time 1 hour, 1 hour 2 mins, 1 hour 2 mins 3 seconds etc
Frequency	Frequency is the number of times a particular value occurs in a set of data.	Red, blue, red, green, yellow red. The frequency of red is 3.
Frequency table	Usually we would record the frequency of data in a frequency table. Often using a Tally as shown to the right.	Marks Tally Frequency 1 /// 3 2 /// 3 3 // 2 4 // 2 5 // 2 6 JHT 5 7 //// 4 8 JHT 5 9 // 2 10 // 2 Total 30
Stem and Leaf	A stem and leaf diagram shows numbers in a table format. It can be a useful way to organise data to find the median, mode and range of a set of data.	Key: 1 1 = 11 marks 0 9 1 1 6 7 8 2 1 2 7 7 8 9 3 0 0 1 5 6 7 8 9 4 0 1 2 5 5 5
Pictograms	Pictograms use pictures to represent data. To make sense, a pictogram must always have a key.	Alan Image: Chris Dave Image: Chris Image: Chris Image: Ch
Pie Charts	Pie Charts show proportions, i.e. a fraction of a whole and NOT total amounts.	School A School B Tin cans Plastic bottles Tin cans Plastic bottles

Scatter graphs	Scatter graphs are a good way of displaying two sets of data to see if there is a correlation , or connection.	102 102 102 102 102 102 102 102
Line of best fit	A line of best fit is a sensible straight line that goes as centrally as possible through the coordinates plotted. It should also follow the same steepness of the crosses.	A A A A A A A A A A A A A A A A A A A
Correlation	Positive correlation means as one variable increases, so does the other variable. They have a positive connection. Negative correlation means as one variable increases, the other variable decreases. They have a negative connection. No correlation means there is no connection between the two variables.	y-axis y-axis Positive Correlation y-axis Positive Correlation y-axis Positive Correlation
Histograms	A histogram looks like a bar chart, except the area of the bar , and not the height, shows the frequency of the data. (To find the frequency of each category you must find the area of each rectangle)	Aige
Mode/Modal class	The mode is the value that occurs most often. The mode is the only average that can have no value, one value or more than one value.	Find the mode of each of the following sets of numbers: a) 3, 7, 1, 3, 4, 8, 3 (mode 3) b) 2, 7, 2, 1, 4, 7, 3 (mode 2 and 7)

Knowledge Organiser Y9 Maths Unit 4 Counting and comparing

Key Vocabulary	Definition/Tips	Example
Integer	A whole number that can be	-3,0,92
Integer	positive, negative or zero.	
Decimal	A number with a decimal point in	3.7, 0.94, -24.07
Decimal	it. Can be positive or negative.	
	An inequality says that two values	7≠3 <i>x</i> ≠0
Inequalities	are not equal. $a \neq b$ means that a is	
	not equal to b.	
	A mathematical expression	2/7 is a 'proper' fraction.
	representing the division of one	9/4 is an 'improper' or 'top-heavy'
Fraction	integer by another.	fraction.
	Fractions are written as two	
	numbers separated by a	
	horizontal line.	
Numerator	The top number of a fraction	In the fraction 3/5, 3 is the numerator.
Denominator	The bottom number of a fraction.	3/5, 5 is the denominator.
Mixed Number	A number formed of both an	3 3/5
	integer part and a fraction part.	is an example of a mixed number.
Simplifving	Divide the numerator and	20/45 = 4/9
Fractions	denominator by the highest	
	common factor.	
Equivalent	Fractions, which represent the	2/5 = 4/10 = 20/50 = 60/150 etc.
Fractions	Same value.	Dut in to coconding order :
	no compare fractions, they each	Put in to ascending order :
	heed to be rewritten so that they	5/4, 2/3, 5/0, 1/2 Equivolopt:
Comparing	Asconding means smallest to	0/12 $8/12$ $10/12$ $6/12$
Fractions	higgest	0/12, 0/12, 10/12, 0/12
	Descending means biggest to	1/2 2/3 3/4 5/6
	smallest	
	Find the LCM of the	2/3+4/5
	denominators to find a common	Multiples of 3: 3, 6, 9, 12, 15,
	denominator.	Multiples of 5: 5, 10, 15
Adding or	Use equivalent fractions to change	LCM of 3 and 5 = 15
Subtracting	each fraction to the common	2/3=1015
Fractions	denominator.	4/5=12/15
	Then just add or subtract the	10/15+12/15=22/15=1 7/15
	numerators and keep the	
	denominator the same.	
Multiplying	Multiply the numerators together	3/8 × 2/9 = 6/72 = 1/12
Fractions	and multiply the denominators	
	together.	2/4 5/2
	Keep it, Flip it, Change it – KFC	$3/4 \div 5/6 =$
	Keep the first fraction the same	$3/4 \times 6/5 =$
Dividing		10/20 - 9/10
Fractions	Change the divide to a multiply	
	Multiply by the reciprocal of the	
	second fraction	

Percentage	Number of parts per 100.	31% means $\frac{31}{31}$
Einding 10%	To find 10% divido by 10	$100'_{100}$
Finding 10%	To find 1%, divide by 10	10% of £30 - 30 + 10 - £3.00
Percentage	Difference	A games console is bought for $f200$
Change	2000000000000000000000000000000000000	and sold for £250.
	01 iginat	% change = $\frac{50}{2} \times 100 = 25\%$
		$200 \times 100 = 2070$
Fractions to	Divide the numerator by the	$\frac{3}{2} = 3 \div 8 = 0.375$
Decimais	method	8
Decimals to	Write as a fraction over 10, 100	36 9
Fractions	or 1000 and simplify.	$0.36 = \frac{100}{100} = \frac{100}{25}$
Percentages to	Divide by 100	$8\% = 8 \div 100 = 0.08$
Decimals		
Decimals to	Multiply by 100	$0.4 = 0.4 \times 100\% = 40\%$
Percentages		2 12
Fractions to	Percentage is just a fraction out of	$\frac{3}{3} = \frac{12}{12} = 12\%$
Percentages	100. Make the denominator 100	25 100
	When the denominator doesn't do	9
	in to 100, use a calculator and	$\frac{1}{17} \times 100 = 52.9\%$
	multiply the fraction by 100.	17
Percentages to	Percentage is just a fraction out of	$1404 - \frac{14}{7} - 7$
Fractions	100. Write the percentage over	$14\% - \frac{1}{100} - \frac{1}{50}$
	100 and simplify.	F : 1)(A T : (0000
	value Added Tax. This is a tax	Find VAT on a price of ± 200
VAT	things that you can huy	$f_{200} + f_{40} = f_{240}$
	The current rate of VAT is 20%.	
Drofit	Profit is the money made after	Expenses = £300
Prom	expenses.	Money made = £345, Profit = £45
_	If the expenses are more than the	Expenses = £300
Loss	money received, then it's	Money made = $\pounds 245$,
	Simple interest is calculated as a	$LOSS = \pm 55$ Every year 7.5% of £250 will be
	percentage of the principal and	added as interest to Saoirse's
	stavs the same over time.	account. 7.5% of £250=£18.75
Simple interest		Each year £18.75 interest will be
		added. After 3 years interest to be
		added =3×£18.75=£56.25.
		£250+£56.25=£306.25
	Compound interest is interest that	Daniel Invests £400 at a compound
	the amount of interest already	Interest earned in first vear
Compound	earned.	=6% of £400 =£24
interest	Therefore, the amount of money	£400+£24 =£424
	that earns interest increases every	Interest earned in second year
	year.	=6% of £424 =£25.44
		£424+£25.44=£449.44

Knowledge	Organisers Y9F Maths Unit 5 – Equa	ations, inequalities, and sequences
Key Vocabulary	Definition/Tips	Example
Expression	A mathematical statement written using symbols , numbers, or letters .	3x + 2 or 5y ²
Equation	A statement showing that two expressions are equal	2y – 17 = 15
Identity	An equation that is true for all values of the variables An identity uses the symbol: ≡	$2x \equiv x + x$
Formula	Shows the relationship between two or more variables	Area of a rectangle = length x width or A= L x W
Collecting terms	An algebraic expression may be simplified by collecting like terms. To reduce the number of terms in the expression, like terms are added or subtracted.	4x - 2x + 8 + 3x - 1 $4x + 3x - 2x + 8 - 1$
Function Machines	A function relates an input to an output. One or more operations are applied to an input to give an output.	input — × 3 — output
	An input value becomes an output value when the operations of a function machine are worked through from left to right .	input — (÷ 3) — output
	An input value can be found from the output when the inverse operations are worked through from right to left .	
Substitution	Replace letters with numbers . Be careful of $5x^2$. You need to square first, then multiply by 5.	a = 3, b = 2 and c = 5. Find: 1. $2a = 2 \times 3 = 6$ 2. $3a - 2b = 3 \times 3 - 2 \times 2 = 5$ 3. $7b^2 - 5 = 7 \times 2^2 - 5 = 23$
Expanding brackets	To expand a single bracket , each term inside the bracket is multiplied by the expression outside the bracket.	Expand 3(a + 3) = 3xa + 3x3 (simplify) = 3a + 9
Solve	To find the answer /value of something Use inverse operations on both sides of the equation (balancing method) until you find the value for the letter.	Solve $2x - 3 = 7$ Add 3 on both sides 2x = 10 Divide by 2 on both sides x = 5
Inverse	Opposite	The inverse of addition is subtraction.

		The inverse of multiplication is
		division.
Rearranging Formulae	Use inverse operations on both sides of the formula (balancing	Make x the subject of $y = \frac{2x-1}{z}$
	method) until you find the	Multiply both sides by z
		yz = 2x - 1
		Add 1 to both sides
		yz + 1 = 2x Divide by 2 on both sides
		yz + 1
		$\frac{1}{2} = x$
M/riting Formulas	Substitute letters for words in the	We now have x as the subject.
vvriung Formulae	question.	£5 call out charge.
		C=3N+5
		Where N=number of windows and C=cost
Linear Sequence	A number pattern with a common difference .	2, 5, 8, 11 is a linear sequence
Term	Each value in a sequence is called a term.	In the sequence 2, 5, 8, 11, 8 is the third term of the sequence.
Term-to-term rule	A rule which allows you to find the	First term is 2. Term-to-term rule is
	know the previous term	
	know the previous term.	Sequence is: 2, 5, 8, 11
		1 7 7 7
nth term	A rule which allows you to	nth term is $3n - 1$
	calculate the term that is in the	
	nth position of the sequence.	The 100 th term is $3 \times 100 - 1 = 299$
	Also known as the 'position-to-term'	
	rule.	
	a sequence	
Fibonacci type	A sequence where the next number	The Fibonacci sequence is:
sequences	is found by adding up the previous two terms	1,1,2,3,5,8,13,21,34
	-	An example of a Fibonacci-type
		sequence is:
		4, 7, 11, 18, 29

Inequality	An inequality says that two values	7 ≠ 3
	are not equal	
		$r \neq 0$
	a (h means that a is not actual to	$x \neq 0$
	$a \neq b$ means that a is not equal to	
	b.	
Inequality	x > 2 means x is greater than 2	State the integers that satisfy
symbols	<i>x</i> < 3 means x is less than 3	$-2 < x \le 4.$
	$x \ge 1$ means x is greater than or	
	equal to 1	-1, 0, 1, 2, 3, 4
	x < 6 means x is less than or	
	equal to 6	
inequalities on a	inequalities can be snown on a	
Number Line	number line.	-2 -1 0 1 2 3 $x \ge 0$
	Open circles are used for numbers	
	that are less than or greater than	-5 -4 -3 -2 -1 0 1 2 3 4 5 x < 2
	$(\langle or \rangle)$	0
		+
	Closed circles are used for	$-5 -4 -3 -2 -1 0 1 2 3 4 5 -5 \le x <$
	numbers that are less than or	4
	equal or greater than or equal (\leq	
	$ or \geq)$	

Knowledge Organiser Y9F Unit 6 Angles

Key Vocabulary	Definition/Tips	Example
1. Types of Angles	Acute angles are less than 90°.	
	Right angles are exactly 90°.	
	Obtuse angles are greater than	Acuta Pickt Obtuce Pefley
	90° but less than 180°.	Acute Right Obluse Reflex
	180° but less than 360°	
2. Angle Notation	Can use one lower-case letters.	
	e.g., θ or x	
	Can use three upper-case	A
	letters, e.g., <i>BAC</i>	C
3. Angles at a Point	Angles around a point add up	
	to 360°.	ca
		b
		$a+b+a+d=360^{\circ}$
1 Angles on a	Angles around a point on a	<i>u+v+c+u-500</i>
Straight Line	straight line add up to 180°.	/
		x y
		$x + y = 180^{\circ}$
5. Opposite Angles	Vertically opposite angles are	
	equal.	x / y
		y/x
		-/
6. Alternate Angles	Alternate angles are equal.	
	They look like Z angles, but	
	nevel say this in the exam.	
		$x y \rightarrow $
7.Corresponding	Corresponding angles are	y/
Angles	equal.	
	They look like F angles, but	
	never say this in the exam.	y y
		x
8 Co Interior	Co Interior angles add up to	/
Angles	180°	y x
, ungloo	They look like C angles, but	
	never say this in the exam.	x
		<u> </u>
9. Angles in a	Angles in a triangle add up to	A
Triangle	180°.	800
		45 °
		B 55°
		c

10. Types of Triangles	Right Angle Triangles have a 90° angle in. Isosceles Triangles have 2 equal sides and 2 equal base angles. Equilateral Triangles have 3 equal sides and 3 equal angles (60°). Scalene Triangles have different sides and different angles.	Right Angled Isosceles
11. Angles in a Quadrilateral	Angles in a quadrilateral add up to 360°.	A + B + C + D = 360
12. Polygon	A 2D shape with only straight edges .	Rectangle, Hexagon, Decagon, Kite etc.
13. Regular	A shape is regular if all the sides and all the angles are equal .	
14. Sum of Interior Angles	$(n-2) \times 180$ where n is the number of sides.	Sum of Interior Angles in a Decagon = $(10 - 2) \times 180 = 1440^{\circ}$
15. Size of Interior Angle in a Regular Polygon	$\frac{(n-2) \times 180}{n}$ You can also use the formula: 180 – Size of Exterior Angle	Size of Interior Angle in a Regular Pentagon = $\frac{(5-2) \times 180}{5} = 108^{\circ}$
16. Size of Exterior Angle in a Regular Polygon	$\frac{360}{n}$ You can also use the formula: 180 – Size of Interior Angle	Size of Exterior Angle in a Regular Octagon = $\frac{360}{8} = 45^{\circ}$

Knowledge Organiser Y9F Unit 7 and 8

Key Vocabularv	Definition/Tips	Example
1. Types of Data	Qualitative Data – non-numerical data	Qualitative Data – eye colour, gender etc.
	Continuous Data – data that can take any numerical value within a given	Continuous Data – weight, voltage etc.
	range. Discrete Data – data that can take only specific values within a given range.	Discrete Data – number of children, shoe size etc.
2. Grouped	Data that has been bundled in to	Foot length, <i>l</i> , (cm) Number of children
Data	categories.	10 ≤ <i>l</i> < 12 5
	Seen in grouped frequency tables, histograms, cumulative frequency etc.	12 ≤ <i>l</i> < 17 53
3. Primary /Secondary Data	Primary Data – collected yourself for a specific purpose. Secondary Data – collected by someone else for another purpose.	Primary Data – data collected by a student for their own research project. Secondary Data – Census data used to analyse link between education and earnings.
4. Mean	Add up the values and divide by how many values there are.	The mean of 3, 4, 7, 6, 0, 4, 6 is $\frac{3+4+7+6+0+4+6}{7} = 5$
5. Mean from a Table	 Find the midpoints (if necessary) Multiply Frequency by values or midpoints Add up these values Divide this total by the Total Frequency grouped data is used, the answer will be an estimate. 	Height in cm Frequency Midpoint $F \times M$ $0 < h \le 10$ 8 5 $8 \times 5 = 40$ $10 < h \le 30$ 10 20 $10 \times 20 = 200$ $30 < h \le 40$ 6 35 $6 \times 35 = 210$ Total 24 Ignore! 450 Estimated Mean height: $450 \div 24 =$ 18.75cm
6. Median Value	The middle value. Put the data in order and find the middle one. If there are two middle values , find the number half way between them by adding them together and dividing by 2 .	Find the median of: 4, 5, 2, 3, 6, 7, 6 Ordered: 2, 3, 4, 5 , 6, 6, 7 Median = 5
7. Median	Use the formula $\frac{(n+1)}{2}$ to find the	If the total frequency is 15, the
from a Table	position of the median.	median will be the $\left(\frac{15+1}{2}\right) =$
	n is the total frequency.	8th position
8. Mode	Most frequent/common.	Find the mode: 4, 5, 2, 3, 6, 4, 7, 8,
/Modal Value	Can have more than one mode or no mode (if all values appear once)	4 Mode = 4
9. Range	Highest value subtract the Smallest value Range is a 'measure of spread'. The smaller the range the more <u>consistent</u> the data.	Find the range: 3, 31, 26, 102, 37, 97. Range = 102-3 = 99

		12
10. Outlier	A value that flies outside most of the	10 Outlier
	other values in a set of data.	
	An outlier is much smaller or much	4
	larger than the other values in a set of	2
	data.	0 20 40 60 80 100
11. Lower	Divides the bottom half of the data	Find the lower quartile of: 2, <u>3</u> , 4, 5,
Quartile	into two halves .	6, 6, 7
	LQ = $Q_1 = \frac{(n+1)}{th}$ th value	$Q_1 = \frac{(7+1)}{2} = 2nd$ value $\rightarrow 3$
	Divides the ten half of the data into	Find the upper quertile of 2 2 4 5
12. LOWEI	two belies	
Quartile	$\frac{1}{3}$	$0, \underline{0}, 7$
	$UQ = Q_3 = \frac{S(t+1)}{4} th \text{ value}$	$Q_3 = \frac{3(t+1)}{4} = 6th$ value $\rightarrow 6$
13.	The difference between the upper	Find the IQR of: 2, 3, 4, 5, 6, 6, 7
Interquartile	quartile and lower quartile.	
Range	$IQR = Q_3 - Q_1$	$IQR = Q_3 - Q_1 = 6 - 3 = 3$
	The smaller the interguartile range,	
	the more consistent the data.	
14. Stem and	A stem and leaf diagram shows	Key: 1 1 = 11 marks
Leaf	numbers in a table format. It can be a	0 9
	useful way to organise data to find the	1 1 6 7 8
	median, mode and range of a set of	2 1 2 7 7 8 8 9 3 0 0 1 5 6 7 8 9
	data.	4 0 1 2 5
15. Perimeter	The total distance around the outside	8 cm
	of a shape.	5 cm
	Units include: mm. cm. m etc	
		P = 8 + 5 + 8 + 5
40.4		= 26cm
16. Area	The amount of space inside a shape.	
	Units include: mm ² , cm ² , m ²	
17 Area of a	Length x Width	9 cm
Rectangle		4 cm
rtootarigio		$A = 36 cm^2$
18 Area of a	Base x Perpendicular Height	
Parallelogra	Not the slant height	4cm 3cm
m		
		$A = 21 cm^2$
19. Area of a	Base x Height ÷ 2	
Triangle		9
,		4 5
		12 $A = 24cm^2$
20. Area of a	Split in to two triangles and use the	
Kite	method above.	2.2m
		$A = 8.8m^2$
21. Area of a	$\frac{(a+b)}{b} \times b$	0 cm
Irapezium	2	5 cm
		$\stackrel{\stackrel{\scriptstyle \leftarrow}{\longleftarrow}}{\longleftarrow} A = 55 cm^2$
		11 000m