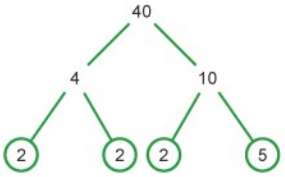
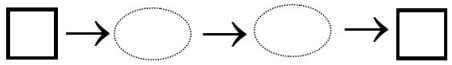
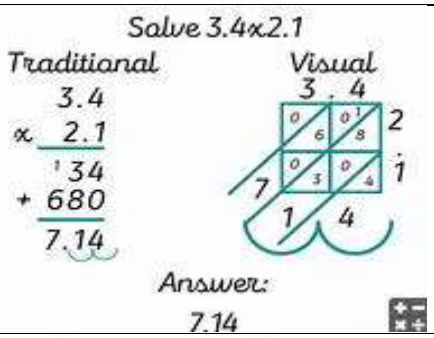
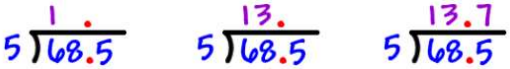
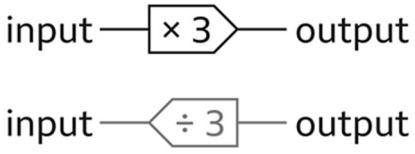
Knowledge Organiser Y9 Foundation – Maths - Number

Key Vocabulary	Definition/Tips	Example
Integer	A **whole number** that can be positive, negative or zero.	$-3, 0, 92$
Decimal	A number with a **decimal point** in it. Can be positive or negative.	$3.7, 0.94, -24.07$
Negative Number	A number that is **less than zero**. Can be decimals.	$-8, -2.5$
BIDMAS	An acronym for the **order** you should do calculations in. BIDMAS stands for **'Brackets, Indices, Division, Multiplication, Addition and Subtraction'**. Indices are also known as 'powers' or 'orders'. With strings of division and multiplication, or strings of addition and subtraction, and no brackets, work from left to right.	$6 + 3 \times 5 = 21, not\ 45$ $5^2 = 25$, where the 2 is the index/power. $12 \div 4 \div 2 = 1.5, not\ 6$
Prime Numbers	**Prime numbers are** special numbers, greater than 1, that have exactly two factors, themselves and 1.	2, 3, 5, 7, 11, 13, 17, 19… 2 x 1 = 2, 3 x 1 = 3 etc
Factors	**Factors** are numbers that divide exactly into another number.	For example, the factors of 8 are: **1, 2, 4, 8** Factors can be shown in pairs. Each pair multiplies to make 8. 1 x 8 = 8 2 x 4 = 8
Multiples	**Multiples are just extended times tables.**	The multiples of 2 are all the numbers in the 2 times table, such as 2, 4, 6, 8, 10 and so on.
LCM	The **lowest/least common multiple** (abbreviated to LCM) is the lowest number that is a multiple of two or more subject-numbers.	For example, the **common multiples** of 4 and 5 are 20, 40, 60, 80 and so on. These are the numbers that are multiples of **both** 4 and 5. The LCM is therefore 20, as this is the lowest of all the common multiples.
HCF	A **common factor** is a factor that is shared by two 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 the largest one.	For example, 8 and 12 have common factors of 1, 2 and 4. The highest common factor is 4.

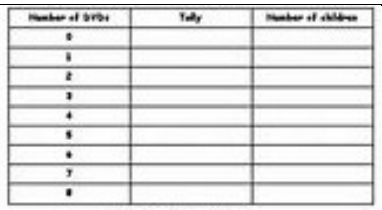
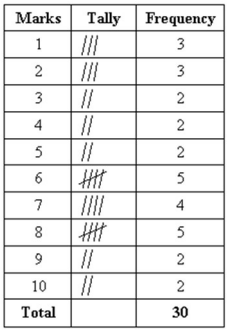
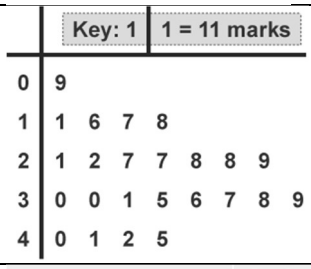
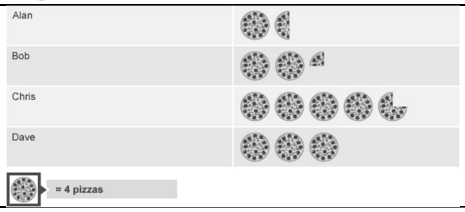
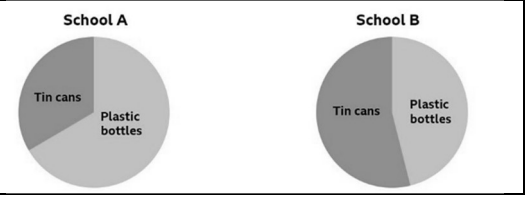
Prime factors	Prime factors are factors of a number that are, themselves, prime numbers.	The most common is to use prime factorisation with a **prime factor tree**.  Where the answer would be written: 2 x 2 x 2 x 5
Square numbers	A square number is a number multiplied by itself. This can also be called 'a number squared'. The symbol for squared is ².	$2^2 = 2 \times 2 = 4$ $3^2 = 3 \times 3 = 9$ $4^2 = 4 \times 4 = 16$ etc
Cube Numbers	A cube number is a number multiplied by itself twice. This can also be called 'a number cubed'. The symbol for cubed is ³.	$2^3 = 2 \times 2 \times 2 = 8$ $3^3 = 3 \times 3 \times 3 = 27$ $4^3 = 4 \times 4 \times 4 = 64$ etc
Function machines	A **function machine** is a way of writing rules using a flow diagram.	
Rounding Decimal place	When **rounding using** decimal places(dp), the degree of accuracy that is required is usually given.	Round 248.561 to one and two decimal places. 248.5|**6**1 to one decimal place is 248.6 248.56|**1** to two decimal places is 248.56
Rounding Significant figures	Another way of rounding numbers is to count only the first few digits (maybe 1, 2 or 3 figures) that have a value attached to them. This method of rounding is called **significant figures** and it's often used with larger numbers, or very small numbers.	Round 248.561 to two and 3 significant figures. • 24|8.561 to two significant figures is 250 (first 2 numbers) • 248|.561 to three significant figures is 249 (first 3 numbers)
Multiplying decimals	**Multiplying decimals** works the same way as **<u>multiplying whole numbers</u>**.	
Dividing decimals	**Dividing decimals** works the same way as **<u>dividing whole numbers</u>**. Ensure you align the decimal points.	

Knowledge Organiser Y9 Maths: Unit 2 Algebra

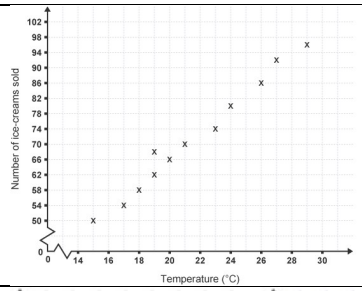
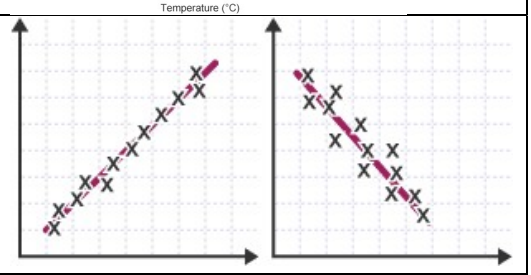
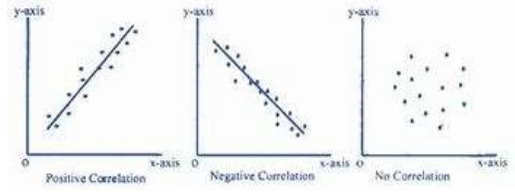
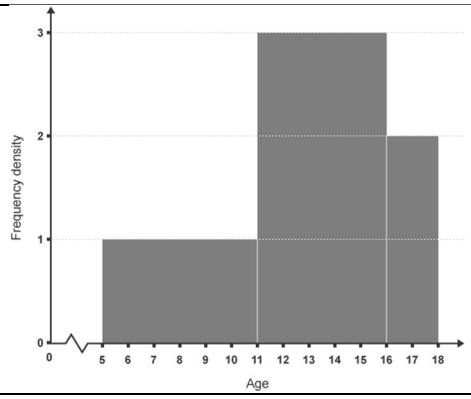
Key vocabulary	Definition/Tips	Example
1. Expression	A mathematical statement written using **symbols**, **numbers,** or **letters**.	$3x + 2$ or $5y^2$
2. Equation	A statement showing that **two expressions are equal**	$2y - 17 = 15$
3. Identity	An equation that is **true for all values** of the variables An identity uses the symbol: ≡	$2x \equiv x + x$
4. Formula	Shows the **relationship** between **two or more variables**	Area of a rectangle = length x width or A= L x W
5. 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.	$4x - 2x + 8 + 3x - 1$ $4x + 3x - 2x + 8 - 1$
6. Function Machines	A function relates an input to an output. One or more operations are applied to an input to give an output. There is one output for a given input. 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**. 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. $7b^2 - 5 = 7 \times 2^2 - 5 = 23$
8. The order of operations	The **order of operations** is the order you work out the parts of an equation to give you the correct answer.	**BIDMAS** is an acronym used to tell you the correct order to complete a equation when there are different operations.

		BIDMAS stands for **B**rackets, **I**ndices, **D**ivision, **M**ultiplication, **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.	
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.	
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.	
Pictograms	**Pictograms use pictures to represent data. To make sense, a pictogram must always have a key.**	
Pie Charts	Pie Charts show proportions, i.e. a fraction of a whole and NOT total amounts.	

Marks	Tally	Frequency
1	///	3
2	///	3
3	//	2
4	//	2
5	//	2
6	////	5
7	////	4
8	////	5
9	//	2
10	//	2
Total		30

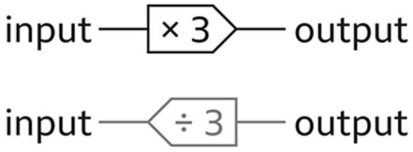
Scatter graphs	**Scatter graphs** are a good way of displaying two sets of data to see if there is a **correlation**, or connection.	
Line of best fit	A **line of best fit** is a sensible straight line that goes as centrally as possible through the coordinates plotted. It should also follow the same steepness of the crosses.	
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.	
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)	
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

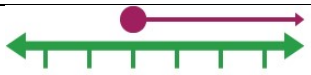
Key Vocabulary	Definition/Tips	Example
Integer	A **whole number** that can be positive, negative or zero.	$-3, 0, 92$
Decimal	A number with a **decimal point** in it. Can be positive or negative.	$3.7, 0.94, -24.07$
Inequalities	An inequality says that two values are not equal. $a \neq b$ means that a is not equal to b.	7≠3 x≠0
Fraction	A mathematical expression representing the **division** of one integer by another. Fractions are written as **two numbers separated by a horizontal line**.	2/7 is a 'proper' fraction. 9/4 is an 'improper' or 'top-heavy' fraction.
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 **integer part** and a **fraction part**.	3 3/5 is an example of a mixed number.
Simplifying Fractions	**Divide the numerator and denominator by the highest common factor**.	20/45 = 4/9
Equivalent Fractions	Fractions, which represent the **same value**.	2/5 = 4/10 = 20/50 = 60/150 etc.
Comparing Fractions	To compare fractions, they each need to be rewritten so that they have a **common denominator**. **Ascending** means **smallest to biggest**. **Descending** means **biggest to smallest**.	Put in to ascending order : 3/4, 2/3, 5/6, 1/2 Equivalent: 9/12, 8/12, 10/12, 6/12 Correct order: 1/2, 2/3, 3/4, 5/6
Adding or Subtracting Fractions	Find the **LCM of the denominators** to find a common denominator. Use equivalent fractions to change each fraction to the **common denominator**. Then just **add or subtract the numerators** and keep the **denominator the same**.	2/3+4/5 Multiples of 3: 3, 6, 9, 12, 15.. Multiples of 5: 5, 10, 15.. LCM of 3 and 5 = 15 2/3=1015 4/5=12/15 10/15+12/15=22/15=1 7/15
Multiplying Fractions	**Multiply** the **numerators** together and **multiply** the **denominators** together.	3/8 × 2/9 = 6/72 = 1/12
Dividing Fractions	'Keep it, Flip it, Change it – KFC' Keep the first fraction the same Flip the second fraction upside down Change the divide to a multiply Multiply by the reciprocal of the second fraction.	3/4 ÷ 5/6 = 3/4 × 6/5 = 18/20 = 9/10

Percentage	**Number of parts per 100.**	31% means $\frac{31}{100}$
Finding 10%	To find **10%**, **divide by 10**	10% of £36 = 36÷10 = £3.60
Finding 1%	To find **1%**, **divide by 100**	1% of £8 = 8÷100 = £0.08
Percentage Change	$\frac{\boldsymbol{Difference}}{\boldsymbol{Original}} \times \mathbf{100}\%$	A games console is bought for £200 and sold for £250. % change = $\frac{50}{200} \times 100 = 25\%$
Fractions to Decimals	**Divide the numerator by the denominator** using the bus stop method.	$\frac{3}{8} = 3 \div 8 = 0.375$
Decimals to Fractions	**Write as a fraction** over 10, 100 or 1000 and simplify.	$0.36 = \frac{36}{100} = \frac{9}{25}$
Percentages to Decimals	**Divide by 100**	$8\% = 8 \div 100 = 0.08$
Decimals to Percentages	**Multiply by 100**	$0.4 = 0.4 \times 100\% = 40\%$
Fractions to Percentages	Percentage is just a fraction out of 100. **Make the denominator 100 using equivalent fractions**. When the denominator doesn't go in to 100, use a calculator and **multiply the fraction by 100**.	$\frac{3}{25} = \frac{12}{100} = 12\%$ $\frac{9}{17} \times 100 = 52.9\%$
Percentages to Fractions	Percentage is just a fraction out of 100. **Write the percentage over 100** and simplify.	$14\% = \frac{14}{100} = \frac{7}{50}$
VAT	Value Added Tax. This is a tax added on to the price of lots of the things that you can buy. The current rate of VAT is 20%.	Find VAT ona price of £200 £200 + 20% (10% = £20) £200 + £40 = £240
Profit	Profit is **the money made after expenses**.	Expenses = £300 Money made = £345, Profit = £45
Loss	If the expenses are more than the money received, then it's considered a loss.	Expenses = £300 Money made = £245, Loss = £55
Simple interest	Simple interest is calculated as a percentage of the principal and stays the same over time.	Every year, 7.5% of £250 will be added as interest to Saoirse's account. 7.5% of £250=£18.75 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	Compound interest is interest that is calculated on the principle plus the amount of interest already earned. Therefore, the amount of money that earns interest increases every year.	Daniel invests £400 at a compound interest rate of 6%. Interest earned in first year =6% of £400 =£24 £400+£24 =£424 Interest earned in second year =6% of £424 =£25.44 £424+£25.44=£449.44

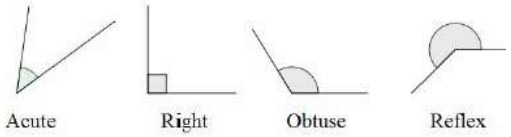
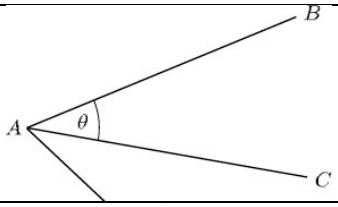
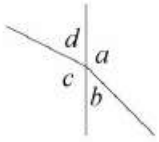
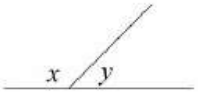
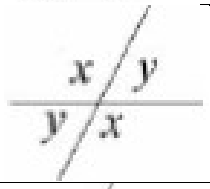
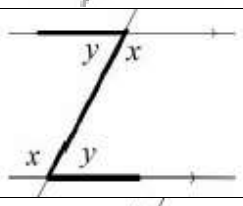
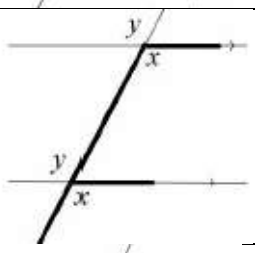
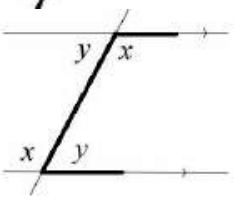
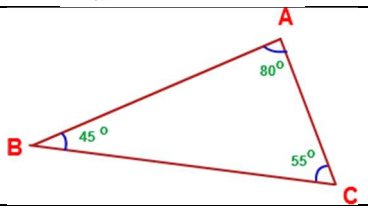
Knowledge Organisers Y9F Maths Unit 5 – Equations, inequalities, and sequences

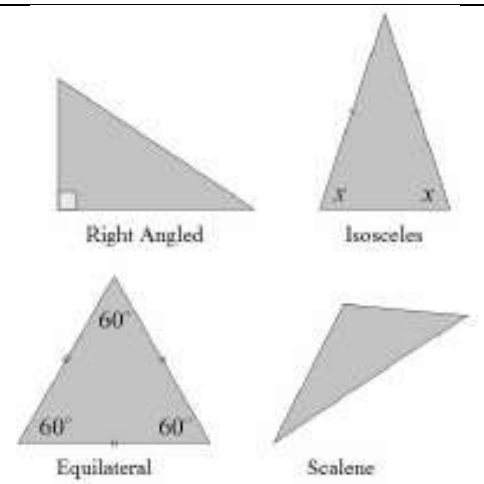
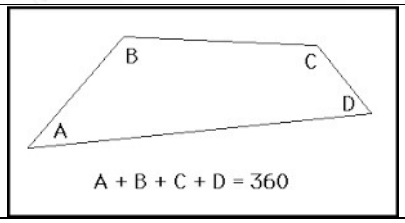
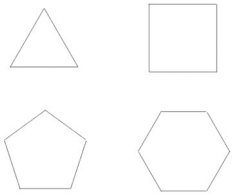
Key Vocabulary	Definition/Tips	Example
Expression	A mathematical statement written using **symbols**, **numbers,** or **letters**.	3x + 2 or $5y^2$
Equation	A statement showing that **two expressions are equal**	2y – 17 = 15
Identity	An equation that is **true for all values** of the variables An identity 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. 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**.	
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 method) until you find the expression for the letter.	Make x the subject of $y = \frac{2x-1}{z}$ Multiply both sides by z $yz = 2x - 1$ Add 1 to both sides $yz + 1 = 2x$ Divide by 2 on both sides $\frac{yz+1}{2} = x$ We now have x as the subject.
Writing Formulae	**Substitute letters for words** in the question.	Bob charges £3 per window and a £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 next term** in a sequence if you **know the previous term**.	First term is 2. Term-to-term rule is 'add 3' Sequence is: 2, 5, 8, 11…
nth term	A rule which allows you to **calculate the term** that is in the **nth position** of the sequence. Also known as the 'position-to-term' rule. **n** refers to the **position** of a term in a sequence.	nth term is $3n - 1$ The 100th term is $3 \times 100 - 1 = 299$
Fibonacci type sequences	A sequence where the next number is found by **adding up the previous two terms**	The Fibonacci sequence is: $1,1,2,3,5,8,13,21,34$ … An example of a Fibonacci-type sequence is: $4, 7, 11, 18, 29$ …

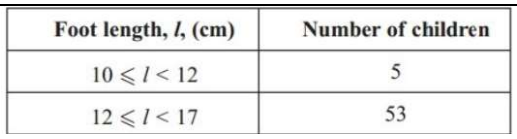
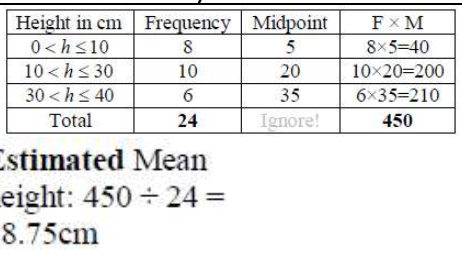
Inequality	An inequality says that two values are **not equal**. $a \neq b$ means that a is not equal to b.	$7 \neq 3$ $x \neq 0$
Inequality symbols	$\boldsymbol{x > 2}$ means **x is greater than 2** $\boldsymbol{x < 3}$ means **x is less than 3** $\boldsymbol{x \geq 1}$ means **x is greater than or equal to 1** $\boldsymbol{x \leq 6}$ means **x is less than or equal to 6**	State the integers that satisfy $-2 < x \leq 4$. -1, 0, 1, 2, 3, 4
Inequalities on a Number Line	Inequalities can be shown on a number line. **Open circles** are used for numbers that are **less than or greater than** $(< or >)$ **Closed circles** are used for numbers that are **less than or equal or greater than or equal** $(\leq or \geq)$	 $x \geq 0$  $x < 2$  $-5 \leq x < 4$

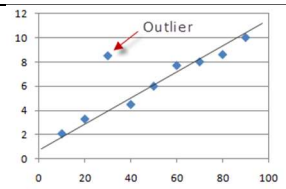
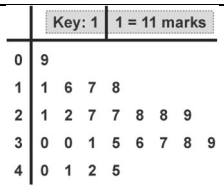
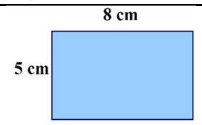
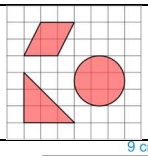
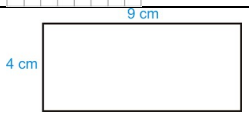
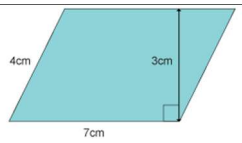
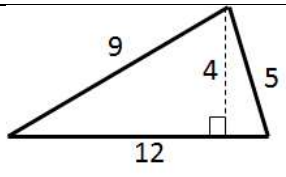
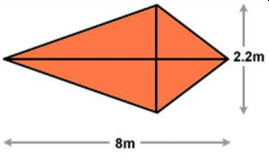
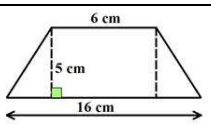
Knowledge Organiser Y9F Unit 6 Angles

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 90° but less than 180°. **Reflex angles** are greater than 180° but less than 360°.	
2. Angle Notation	Can use **one lower-case** letters, e.g., θ or x Can use **three upper-case** letters, e.g., BAC	
3. Angles at a Point	**Angles around a point add up to 360°**.	 $a+b+c+d=360^o$
4. Angles on a Straight Line	**Angles around a point on a straight line add up to 180°**.	 $x+y=180^o$
5. Opposite Angles	**Vertically opposite angles are equal**.	
6. Alternate Angles	**Alternate angles are equal**. They look like Z angles, but never say this in the exam.	
7.Corresponding Angles	**Corresponding angles are equal**. They look like F angles, but never say this in the exam.	
8. Co-Interior Angles	**Co-Interior angles add up to 180°**. They look like C angles, but never say this in the exam.	
9. Angles in a Triangle	**Angles in a triangle add up to 180°.**	

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**.	
11. Angles in a Quadrilateral	**Angles in a quadrilateral add up to 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	$(\boldsymbol{n-2})\times\boldsymbol{180}$ where n is the number of sides.	Sum of Interior Angles in a Decagon $= (10-2)\times 180 = 1440°$
15. Size of Interior Angle in a Regular Polygon	$\frac{(\boldsymbol{n-2})\times\boldsymbol{180}}{\boldsymbol{n}}$ You can also use the formula: $\boldsymbol{180 - Size\ of\ Exterior\ Angle}$	Size of Interior Angle in a Regular Pentagon = $\frac{(5-2)\times 180}{5} = 108°$
16. Size of Exterior Angle in a Regular Polygon	$\frac{\boldsymbol{360}}{\boldsymbol{n}}$ You can also use the formula: $\boldsymbol{180 - Size\ of\ Interior\ Angle}$	Size of Exterior Angle in a Regular Octagon = $\frac{360}{8} = 45°$

Knowledge Organiser Y9F Unit 7 and 8

Key Vocabulary	Definition/Tips	Example
1. Types of Data	**Qualitative** Data – **non-numerical** data **Quantitative** Data – **numerical** data **Continuous** Data – data that can take **any numerical value** within a given range. **Discrete** Data – data that can take **only specific values** within a given range.	Qualitative Data – eye colour, gender etc. Continuous Data – weight, voltage etc. Discrete Data – number of children, shoe size etc.
2. Grouped Data	Data that has been **bundled in to categories**. Seen in grouped frequency tables, histograms, cumulative frequency etc.	 **Foot length, *l*, (cm)** / **Number of children** $10 \leqslant l < 12$ / 5 $12 \leqslant l < 17$ / 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	1. Find the midpoints (if necessary) 2. Multiply Frequency by values or midpoints 3. Add up these values 4. Divide this total by the Total Frequency If **grouped** data is used, the answer will be an **estimate**.	 Height in cm / Frequency / Midpoint / F × M $0 < h \leq 10$ / 8 / 5 / 8×5=40 $10 < h \leq 30$ / 10 / 20 / 10×20=200 $30 < h \leq 40$ / 6 / 35 / 6×35=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 from a Table	Use the formula $\frac{(n+1)}{2}$ to find the position of the median. n is the total frequency.	If the total frequency is 15, the median will be the $\left(\frac{15+1}{2}\right) = 8th$ position
8. Mode /Modal Value	**Most** frequent/common. Can have more than one mode or no mode (if all values appear once)	Find the mode: 4, 5, 2, 3, 6, 4, 7, 8, 4 Mode = 4
9. Range	**Highest value subtract the Smallest value** Range is a 'measure of spread'. The smaller the range the more consistent the data.	Find the range: 3, 31, 26, 102, 37, 97. Range = 102-3 = 99

10. Outlier	A value that '**lies outside**' most of the other values in a set of data. An outlier is **much smaller or much larger** than the other values in a set of data.	
11. Lower Quartile	**Divides** the **bottom half** of the data into **two halves**. **LQ = $Q_1 = \frac{(n+1)}{4}th$ value**	Find the lower quartile of: 2, **3**, 4, 5, 6, 6, 7 $Q_1 = \frac{(7+1)}{4} = 2nd$ value → 3
12. Lower Quartile	**Divides** the **top half** of the data into **two halves**. **UQ = $Q_3 = \frac{3(n+1)}{4}th$ value**	Find the upper quartile of: 2, 3, 4, 5, 6, **6**, 7 $Q_3 = \frac{3(7+1)}{4} = 6th$ value → 6
13. Interquartile Range	The **difference** between the **upper quartile and lower quartile.** $IQR = Q_3 - Q_1$ The **smaller** the **interquartile range**, the **more consistent** the data.	Find the IQR of: 2, 3, 4, 5, 6, 6, 7 $IQR = Q_3 - Q_1 = 6 - 3 = 3$
14. 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.	
15. Perimeter	The **total distance** around the **outside** of a shape. Units include: mm, cm, m etc.	 $P = 8 + 5 + 8 + 5$ $= 26cm$
16. Area	The amount of **space inside** a shape. Units include: mm^2, cm^2, m^2	
17. Area of a Rectangle	**Length x Width**	 $A = 36cm^2$
18. Area of a Parallelogram	**Base x Perpendicular Height** Not the slant height.	 $A = 21cm^2$
19. Area of a Triangle	**Base x Height ÷ 2**	 $A = 24cm^2$
20. Area of a Kite	Split in to **two triangles** and use the method above.	 $A = 8.8m^2$
21. Area of a Trapezium	$\frac{(a+b)}{2} \times h$	 $A = 55cm^2$