

Year 9 Foundation Revision List - April 2019

<u>Objective</u>	<u>Hegarty Maths Clip</u>	<u>Objective</u>	<u>Hegarty Maths Clip</u>
Find common factors and common multiples of two numbers	27/33	Estimate answers to calculations using approximation and rounding	131
Know the square numbers up to 15x15 and their corresponding roots	99/101	Understand that premature rounding can cause problems when undertaking calculations with more than one step	132
Identify prime numbers	28	Calculate speed, distance or time, given the other two	716-724
Write a number as the product of its prime factors	29	Calculate density, mass or volume, given the other two	725-731
Find the HCF and LCM of two numbers	32/35	Calculate the perimeter of a rectangle by adding.	549
Recognise a linear sequence and use the term-to-term rule to generate further terms.	197	Use appropriate units for the perimeter of a shape.	691
Draw the next diagram in a series of patterns.	196	Calculate the perimeter of a triangle and other polygons by adding.	549
Generate the terms of a linear sequence using the term-to-term rule.	197	Measure shapes and find their perimeter.	548
Identify the term-to-term rule of a linear sequence.	197	Calculate the perimeter of a shape made from rectangles where all the values required are given.	549
Recognise that a series of patterns generates a numerical sequence.	196	Calculate the perimeter of a shape made from triangles, rectangles and other quadrilaterals where all the values required are given.	549
Recognise the sequences of triangular , square and cube numbers and the Fibonacci sequence, and use the term-to-term rule to generate further terms.	261	Calculate the perimeter of a shape made from rectangles where some of the values required must be calculated.	550
Identify whether a term will appear in a sequence, and explain your answer.	197	Calculate the perimeter of a shape made from triangles, rectangles and other quadrilaterals where some of the values required must be calculated.	551
Generate the terms of a linear sequence using the position-to-term rule.	198	Know, understand and use the formula for finding the circumference of a circle.	534
Use algebraic notation and symbols correctly.	151	Calculate the perimeter of a semi-circle.	536
Understand the vocabulary of algebra, including the words term and factor.	151	Calculate the perimeter of a quadrant.	544
Understand that algebraic operations follow the same conventions and order as arithmetical operations.	152	When given the input, find the output from a function.	288
Simplify expressions involving one variable by collecting like terms.	156	When given the output, find the input for a function.	288
Simplify expressions involving more than one variable by collecting like terms.	157	Find the function, when given the input and output.	288
Multiply a number by a bracket.	160	Understand and use function notation.	288
Multiply a single term by a bracket.	160	Find the value of a function at a given point.	288
Multiply two (or more) brackets by single terms and simplify the resulting expression.	161	Solve one-step linear equations, e.g. $3x = 9$, $x - 5 = 8$, where the answers are positive integers.	178
Factorise an expression by taking out a common factor.	168	Solve two-step linear equations, e.g. $2x + 1 = 7$, where the answers are positive integers.	179
Fully factorise an expression by taking out common factors.	169	Solve all multi-step linear equations, leaving answers as fractions where appropriate	180/181/182
Write expressions using powers.	173	Solve linear equations involving brackets, e.g. $3(2x - 4) = 6$.	179
Simplify expressions involving the multiplication and division of indices.	173	Interpret a column vector	637/638
Simplify expressions involving raising to a power with indices.	174	Describe movement using column vectors	637/638
Solve simple proportion problems using unitary method	339	Translate a 2d shape when given a column vector	637/638
Use proportion in real contexts (direct only).	339	Describe the translation of a 2d shape using a column vector	637/638
Use proportion in real contexts (including inverse).	342	Represent single column vectors graphically.	622

Understand ratio	328	Identify the column vector from a diagram (single vector)	623
Understand and use ratio notation	328	Multiply a column vector by a scalar and show this graphically.	626
Reduce a ratio to its simplest form	329	Add two vectors numerically and show this graphically.	625
Use ratio in relation to standard and compound units	330	Recognise and name polygons	822
Use scale diagrams and maps	864	Understand the terminology (e.g. regular, irregular, etc), notation (e.g. for parallel sides, equal, sides, etc) and properties relating to polygons.	822
Relate ratios to fractions	330	Calculate and use angle sums of polygons	560
Express a relationship between two quantities as a ratio or a fraction	330	Understand and use properties of angles on a straight line	477
Apply ratio to real contexts and problems (conversion, comparison, scaling, mixing, concentrations)	739	Understand and use properties of vertically opposite angles	480
Add, subtract, multiply and divide quantities of money, household finance, utility bills, shopping bills	744	Understand and use properties of angles at a point	479
Convert between units of measure in the same system	692	Understand and use the angle sum of triangles, find missing angles in scalene triangles	485
Solve problems involving the addition and subtractions of units of measure.	714	Find missing angles in isosceles and equilateral triangles	486
Round numbers to a given power of ten	17	Understand and use three figure bearings to specify direction	492
Round to a given number of decimal places (including money)	56	Measure the bearing of a point B from a point A	492
Round to any number of significant figures	130	Mark on a diagram the position of the point B given its bearing from point A	492
		Measure or draw a bearing between the points on a map or scaled plan	493