

## Year 10 Foundation Revision List - April 2019

<u>Objective</u>	<u>Hegarty Maths Clip</u>	<u>Objective</u>	<u>Hegarty Maths Clip</u>
Identify prime numbers	28	Calculate density, mass or volume, given the other two	725-731
Write a number as the product of its prime factors	29	Calculate the perimeter of a shape made from triangles, rectangles and other quadrilaterals where some of the values required must be calculated.	551
Find the HCF and LCM of two numbers	32/35	Know, understand and use the formula for finding the circumference of a circle.	534
Change between numbers in standard form and ordinary numbers	112/123	Calculate the perimeter of a semi-circle.	536
Recognise the sequences of <b>triangular</b> , 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 quadrant.	544
Recognise <b>simple geometric</b> sequences, and use the term-to-term rule to generate further terms.	264	Calculate the length of an arc.	544
Identify whether a term will appear in a sequence, and explain your answer.	197	Find the perimeter of a sector.	545
Generate the terms of a <b>linear</b> sequence using the <b>position</b> -to-term rule.	198	When given the input, find the output from a function.	288
Find the nth term of a <b>linear</b> sequence.	198	When given the output, find the input for a function.	288
From the numerical sequence generated from a series of patterns, find the nth term.	198	Find the function, when given the input and output.	288
Use algebraic notation and symbols correctly.	151	Understand and use function notation.	288
Understand the vocabulary of algebra, including the words term and factor.	151	Find the value of a function at a given point.	288
Understand that algebraic operations follow the same conventions and order as arithmetical operations.	152	Solve two-step linear equations, e.g. $2x + 1 = 7$ , where the answers are positive integers.	179
Differentiate between expressions, equations, formulae, identities and inequalities. Be able to give examples of each.	154	Solve all multi-step linear equations, leaving answers as fractions where appropriate	180/181/182
Form expressions from written or diagrammatic contexts.	153	Solve linear equations involving brackets, e.g. $3(2x - 4) = 6$ .	179
Multiply a single term by a bracket.	160	Solve linear equations where the unknown appears on both sides.	184
Multiply two (or more) brackets by single terms and simplify the resulting expression.	161	Derive a <b>linear</b> equation from a situation, solve and interpret the solution.	176
Factorise an expression by taking out a common factor.	168	Solve two linear simultaneous equations algebraically where no multiplication is needed.	190
Fully factorise an expression by taking out common factors.	169	Solve two linear simultaneous equations algebraically where multiplication is needed.	191
Expand the product of two linear expressions of the form $x \pm n$ and simplify the resulting expression.	162	Derive two <b>linear</b> simultaneous equations from a situation, solve and interpret the solution.	195
Expand the product of two linear expressions of the form $ax \pm n$ and simplify the resulting expression.	163	Interpret a column vector	637/638
Write expressions using powers.	173	Describe movement using column vectors	637/638
Simplify expressions involving the multiplication and division of indices.	173	Translate a 2d shape when given a column vector	637/638
Simplify expressions involving raising to a power with indices.	174	Describe the translation of a 2d shape using a column vector	637/638
Solve simple proportion problems using unitary method	339	Represent single column vectors graphically.	622
Use proportion in real contexts (direct only).	339	Identify the column vector from a diagram (single vector)	623
Use proportion in real contexts (including inverse).	342	Multiply a column vector by a scalar and show this graphically.	626
Recognise and interpret graphs that illustrate direct and inverse proportion	348	Add two vectors numerically and show this graphically.	625

Reduce a ratio to its simplest form	329	Subtract two column vectors numerically and show this graphically.	625
Use ratio in relation to standard and compound units	330	Find the resultant of two (or more) given vectors.	626
Use scale diagrams and maps	864	Recognise and name polygons	822
Relate ratios to fractions	330	Understand the terminology (e.g. regular, irregular, etc), notation (e.g. for parallel sides, equal, sides, etc) and properties relating to polygons.	822
Express a relationship between two quantities as a ratio or a fraction	330	Calculate and use angle sums of polygons	560
Apply ratio to real contexts and problems (conversion, comparison, scaling, mixing, concentrations)	739	Understand and use properties of angles on a straight line	477
Using equivalent ratios, find an unknown value when another is given.	331	Understand and use properties of vertically opposite angles	480
Divide a quantity in a given ratio.	332	Understand and use properties of angles at a point	479
Add, subtract, multiply and divide quantities of money, household finance, utility bills, shopping bills	744	Understand and use the angle sum of triangles, find missing angles in scalene triangles	485
Convert between units of measure in the same system	692	Find missing angles in isosceles and equilateral triangles	486
Solve problems involving the addition and subtractions of units of measure.	714	Identify parallel and perpendicular lines	821
Round to a given number of decimal places (including money)	56	Recognise which angles are equal on parallel lines	482
Round to any number of significant figures	130	Identify whether equal angles are alternate or corresponding on parallel lines.	481/483
Estimate answers to calculations using approximation and rounding	131	Solve problems using all angle and parallel line rules, giving reasons	488/489
Understand that premature rounding can cause problems when undertaking calculations with more than one step	132	Measure or draw a bearing between the points on a map or scaled plan	493
Use inequality notation to specify simple error intervals due to truncation or rounding	134	Given the bearing of a point B from point A, work out the return bearing of A from B	494
Calculate upper and lower bounds	137	Use accurate drawings to solve bearing problems	495
Calculate speed, distance or time, given the other two	716-724		