

Level 7 Check List

Numbers	
Round numbers to three decimal places and a given number of <i>significant figures</i> .	
Know and use the <i>index laws</i> for multiplication and division of positive <i>integer</i> powers.	
Understand <i>proportionality</i> and calculate the result of any proportional change.	
Calculations	
Estimate calculations by rounding numbers to one s.f. and multiplying or dividing mentally.	
Use a calculator efficiently and appropriately (see "Know Your Calculator")	
Algebra	
Know and use the index laws for multiplication and division of positive <i>integer (whole number)</i> powers	
Solve a pair of <i>simultaneous equations</i> by <i>eliminating</i> one variable.	
Solve a pair of simultaneous equations by finding the <i>intersection</i> of two graphs	
Solve simple <i>inequalities</i> and represent the <i>solutions</i> on a number line;	
Work out and use <i>formulae</i> in real-life situations.	
Deduce properties of the sequences of <i>triangular</i> and <i>square numbers</i> from diagrams	
Investigate the <i>gradients</i> of parallel lines.	
Shape, space and measures	
Understand and use <i>Pythagoras' theorem</i> .	
Remember that if two shapes are <i>similar</i> , <i>corresponding</i> angles are equal and corresponding sides are in the same <i>ratio</i> .	
Remember that the <i>tangent</i> at any point on a circle is <i>perpendicular</i> to the <i>radius</i> at that point.	
Enlarge 2-D shapes, given a fractional scale factor & remember that the resulting shapes are <i>similar</i>	
Understand how enlargement affects the area of a 2-D shape.	
Find the <i>locus</i> of a point that moves according to a rule.	
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Handling Data	
Find the median for large sets of data.	
Estimate the mean of a large set of grouped data	
Draw the most suitable graph or diagram to represent data and justify my choice	
Draw frequency polygons	
Understand fully the types of <i>correlation (strong/weak, positive/negative/none)</i>	
Draw lines of best fit by eye, understanding what they represent and take readings from them.	
Understand relative frequency as an estimate of probability and use this to compare outcomes of experiments	