

Week	36	37	38	39
W/C Date	25-Jun	2-Jul	9-Jul	16-Jul
Topic	Properties of Shapes	Properties of Shapes	Properties of Shapes	Calculating
Key Objectives	Understand and use Pythagoras' theorem Introduction to the trigonometric ratios.	Know and use SOHCAHTOA to calculate angles and missing sides in a right-angled triangle. Know the exact values of $\sin\theta$ and $\cos\theta$ for $\theta = 0^\circ, 30^\circ, 45^\circ, 60^\circ$ and 90° ; know the exact value of $\tan\theta$ for $\theta = 0^\circ, 30^\circ, 45^\circ$ and 60°	Use trigonometry to solve problems involving an angle of depression or an angle of elevation and with bearings.	Calculate with powers and roots. Laws of Indices Calculate with standard Index form, with and without a calculator.
Assessment			10M10 BAM	
Homework				

Mathematics Year 10 grades 5-8 long term plan

	Assessment weeks
	Moderation week
	Data Capture
	STAR marking
	Exit Poll

Key Skills to be Covered

Number: Fractional indices, recurring decimals & fractions

Algebra: Solving quadratics; factorisation, iteration; gradient

Shape and Space: Pythagoras; trigonometry incl exact values; vectors; surface area & volume Of spheres, cones & pyramids; circle theorems.

Data & Probability: measures of central tendency, cumulative frequency; box plots; probability of combined events; Venn diagrams; tree diagrams.

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
W/C Date	03-Sep	10-Sep	17-Sep	24-Sep	01-Oct	08-Oct	15-Oct		29-Oct	05-Nov	12-Nov	19-Nov	26-Nov	03-Dec	10-Dec	17-Dec		
Topic	Calculating	Calculating	Solving Equations & Inequalities 1	Solving Equations & Inequalities 1	Consolidation & revision. Assessment 1	Mathematical movement.	Mathematical Movement/ Algebraic Proficiency		Algebraic Proficiency	Algebraic Proficiency	Proportional Reasoning	Proportional Reasoning	Quadratic Sequences	Solving Eqns. and Inequalities 2	Solving Eqns. and Inequalities 2	Calculating Space		
Key Objectives	Calculate with roots, and with integer and fractional indices Know that $a^0 = 1$ $a^{-n} = 1/a^n$ $a^{1/n} = \sqrt[n]{a}$	Calculating with surds includes establishing the rules of surds. Apply and interpret limits of accuracy, including upper and lower bounds	Iteration. Rearrange an equation to form an iterative formula and use it to find approximate solutions to equations.	Solve two linear simultaneous equations in two variables algebraically: elimination; substitution. Solve problems involving simultaneous equations		Identify & describe similar shapes. Enlargement with integer & fractional scale factors using & finding centre of enlargement. Fully describe a reflection, rotation or translation.	Combinations of rotations, reflections and translations. Simplify and manipulate algebraic expressions involving algebraic fractions		Expand two, or more, binomials. Factorise a quadratic expression. Difference of two squares.	Factorise a quadratic expression of the form $ax^2 + bx + c$ Simplify an algebraic fraction that involves factorisation.	Direct and inverse proportion. Develop a formal algebraic approach, including the constant of proportionality.	Recognise and interpret graphs of direct and inverse proportionality. Solve problems involving various types of proportionality or variation.	nth term for a linear sequence. Find the term in x^2 for a quadratic sequence using the 2 nd difference. Recognise a simple geometric progression	Solve linear inequalities in two variables. Represent inequalities on a number line and on a graph.	Construct and shade a graph to represent a set of linear inequalities in two variables	Recap area of circles and trapeziums and volume of prisms and cylinders. Learn the formulas.		
Assessment		10M1 BAM		10M4 BAM	Test 1				10M4 BAM			10M2 BAM						
Homework																		

Week	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34
W/C Date	07-Jan	14-Jan	21-Jan	28-Jan	04-Feb	11-Feb		25-Feb	04-Mar	11-Mar	18-Mar	25-Mar	01-Apr	08-Apr		
Topic	Calculating Space	Calculating Space	Conjecturing	Conjecturing	Conjecturing	Algebraic Proficiency		Algebraic Proficiency	Algebraic Proficiency	Fractions, Decimals and Percentages	Fractions, Decimals and Percentages/ Solving Eqns. & Inequalities 3	Solving Eqns. & Inequalities 3	Solving Eqns. & Inequalities 3/ Understanding Risk	Understanding Risk		
Key Objectives	Calculate surface area and volume of spheres,	Apply the concept of similarity, including the	Solving problems involving similar shapes.	Develop understanding of and apply circle	Identify when a circle theorem can be used to	Recap $y=mx+c$		Recognise and interpret other graphs: cubic,	Calculate or estimate gradients of graphs and areas under	Change recurring decimals into their corresponding	Solve problems involving repeated percentage change	Solve quadratic equations	Find approximate solutions to	Probability - Representation using expected		

