



National 5 Distance Learning Scheme of Work

The exercises noted below use information provided in the books noted on the JHYS website

Video Lesson	Book	Pdf page
<u>Pythagoras Recap</u>	Corbett Maths	<u>Corbett Maths Ex</u>
<u>3d Pythagoras</u>	MRel2	Pg 18,19

<u>Converse of Pythagoras</u>	MRel2	Pg 20
Trigonometry		
<u>Trig Area of a Triangle</u>	MApps2	Pg 5 and 6 Ex 2
<u>Sine Rule Missing Side</u> <u>Sine Rule Missing Angle</u>	MApps2	Pg 7 to 9 Ex 3
<u>Cosine Rule Missing Side</u>	MApps2	Pg10,11 Ex 4a
<u>Cosine Rule Missing Angle</u>	MApps2	Pg 12,13 Ex 4b
Review - No Video Req	MApps2	Pg 14 , 15 Review Ex
Volume		
<u>Volume of a Prism</u>	MExp1	41
<u>Volume of a Cylinder</u>	MExp1	42,43
<u>Volume of Pyramid/Cone</u>	MExp1	Pg 44,45

<u>Volume of a sphere</u>	MExp1	Pg 46,47
Brackets and Factorising		
<u>Expanding a single bracket</u>	MExp1	Pg 20 Ex 1
<u>Expanding Pairs of Brackets</u>	MExp1	Pg 20, 21 Ex 2a
<u>Expanding Triple</u>	MExp1	Pg 21 Ex 2b
<u>Factorisation-Common Factor</u>	MExp1	Pg 21 Ex 3
<u>Factorisation-Difference of two Squares</u>	MExp1	Pg 22 Ex 4
<u>Factorisation Trinomial unitary</u>	MExp1	Pg 22 and 23 Ex 5
<u>Factorisation Trinomial - Non-Unitary</u>	MExp1	Pg 23 Ex 6

Mixed Factorisation - No video Req	MExp1	Pg 24 Ex 7
<u>Completing the square</u>	Corbett Maths	<u>Corbett Maths Ex</u>
Surds and Indices		
<u>Simplifying Surds</u>	MExp1	Pg 7 Q1
<u>Add/Sub surds</u>	MExp1	Pg 7 Q2 and Q3
<u>Multiplying Surds</u>	MExp1	Pg 7 and 8 Ex 5
<u>Dividing Surds / Rationalising</u>	MExp1	Pg 8 Ex 6
<u>Indices Rule Multiply</u>	MExp1	pg 9 Ex 7 Q1
<u>Indices Rule Divide</u>	MExp1	pg 9 Ex 7 Q2
<u>Indices Rule Power</u>	MExp1	pg 9 Ex 7 Q3to Q7

<u>Indices Rule From Surd</u>	MExp1	Pg 11 Ex 9 All
<u>Indices Rule Negative Powers</u>	MExp1	Pg 10 Ex 8 Q1 to Q7
Recap-No video req	MExp1	Pg 11 Ex 10
<u>Writing Numbers in Standard Form</u>	Corbett Maths	<u>Corbett Maths Ex</u>
<u>Multiplication in Standard Form</u>	Corbett Maths	<u>Corbett Maths Ex</u>
<u>Division in Standard Form</u>	Corbett Maths	<u>Corbett Maths Ex</u>

Algebraic Fractions

<u>Revision of Arithmetic Fractions</u>	Corbett Maths	<u>Add/Sub Fractions</u> <u>Fractions Multiplication</u> <u>Fractions Division</u>
<u>Simplifying Algebraic Fractions</u>	MExp1	Q1 pg 4
<u>Simplifying by Factorising</u>	MExp1	Q2, Q3 pg 4
<u>+ - Algebraic Fractions</u>	MExp1	Q3 pg 5 Q4 pg 6
<u>x ÷ Algebraic Fractions</u>	MExp1	Q1 pg 5 Q2 pg 5
<u>Exam Type</u>	<u>Past Paper PowerPoint</u>	Fraction Section

Arcs and Sectors

<u>Area of Sector</u>	MExp1	Ex 2 pg 34 to 36
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<u>Length of an Arc</u>	MExp1	Ex 1 pg 33,34
Straight Line		
<u>Graphs of the form $y=a$</u>	Corbett Maths	<u>Corbett Maths Ex</u>
<u>Graphs of the form $x=a$</u>	Corbett Maths	<u>Corbett Maths Ex</u>
<u>Find the equation of a line with intercept</u>	Corbett Maths	<u>Corbett Maths Ex</u> Q1 to Q6
<u>Find the Equation line two points</u>	Corbett Maths	<u>Corbett Maths Ex</u> Q7 to end
Simultaneous Equations		
<u>Solving Sim Equations Graphically</u>	MRel1	Pg 15 Ex 3
<u>Solving Sim Equations Algebraically</u>	MRel1	Pg 18,19 Ex 5a, Ex5b, Ex 5c
<u>Interpreting Word Based Problems</u>	MRel1	Pg19, Pg20 Ex 5D

Solving Inequalities		
<u>Solving Equations Review</u>	MRel1	Pg31 Ex 15
<u>Solving Equations with Fractions</u>	MRel1	Pg32 Ex 16 Pg33/pg34 Ex 17 Q1-Q21
<u>Solving Inequalities</u>	MRel1	Pg35 Q22-Q30
Change the subject of the Formula		
<u>Changing the subject basic</u>	MRel1	Pg28 Ex3a
<u>Changing the subject Powers and Roots</u>	MRel1	Pg28/29 Ex3b
Quadratic Function		
<u>Drawing Quadratics</u>	Corbett Maths	<u>Corbett Maths Ex</u>
<u>Solving in the form $y=kx^2$</u> Examples 1 to 3	MRel1	Pg39/40 Ex1 Q1,Q2

<u>Recognise in the complete the square form</u> Examples 4 to 7	MRel1	Pg40 Q3
<u>Solving Quadratics through factorising</u>	MRel1	Pg44,45 Ex 4
<u>Using the Quadratic Formula</u>	MRel1	Pg45 Ex 5
<u>Discriminant</u>	Online WS	<u>Nature of Roots</u>
<u>Sketching Quadratics</u>	Corbett Maths	<u>Corbett Maths Ex</u>
Angles and Polygons		
<u>Angles Parallel Lines Review</u>	MRel2	Pg23,24 Ex 10
<u>Tangents to Circles</u>	MRel2	Pg26,27,28 Ex 3

<u>Angles in a Semi-Circle</u>	MRel2	Pg28,29 Ex 4
<u>Angles in Polygons</u>	Corbett Maths	<u>Corbett Maths Ex</u>
Similarity		
<u>Linear Scale Factor</u>	MRel2	Pg33,34
<u>Similar Area and Volume</u>	MRel2	Pg35,36,37,38
Trig Graphs		
<u>Trig Graphs Amplitude</u>	MRel2	Pg 4,5 Ex1
<u>Trig Graphs Frequency</u>	MRel2	Pg5,6 Ex2A
<u>Amplitude Shift</u> <u>Phase Shift</u>	MRel2	Pg7 Ex2b
<u>Simple Trig Equations</u>	MRel2	Pg8 Ex3 Q1

<u>Trig Equations</u> <u>Negatives</u> <u>Trig Equations</u> <u>Rearranging</u>	MRel2	Pg8 Ex3 Q2,Q3,Q4,Q5
<u>Proving Trig Identities</u>	MRel2	Pg10 Ex5
Vectors		
<u>Using and Drawing</u> <u>Column Vectors</u>	Corbett Maths	<u>Corbett Maths Ex</u>
<u>Vector Pathways</u>	Corbett Maths	<u>Corbett Maths Ex</u>
<u>Vectors 3d Examples</u> <u>8,9,10</u>	MApps1	Pg29
<u>Magnitude of a Vector</u> <u>Examples</u> <u>10,11</u>	MApps1	Pg30

Percentages		
<u>Expressing one Number as percentage of another</u>	Corbett Maths	<u>Corbett Maths Ex</u>
<u>Percentage Multipliers</u>	Corbett Maths	<u>Corbett Maths Ex</u>
<u>Compound Interest</u>	Corbett Maths	<u>Corbett Maths Ex</u>
<u>Reverse Percentages</u>	Corbett Maths	<u>Corbett Maths Ex</u>
Stats		
<u>Mean</u> <u>Median</u> <u>Mode</u> <u>Range</u>	MApps2	Pg19,20,21 Ex 1
<u>Quartiles and SIQR</u>	MApps2	Pg24 Ex3
<u>Standard Deviation</u>	MApps2	Pg29,30 Ex5
<u>Scatter Graphs Line of Best Fit</u>	Corbett Maths	<u>Corbett Maths Ex</u>
End		

