Year 11 Preparing for A-level Maths: Helpful Videos and Resources for Working From Home

	Topics to Prepare for A-level Maths	Cortbett Maths Videos and Resources
	Topics to Prepare for A-level Matris	(No subscription required)
1	Manipulating algebraic expressions	15 - Algebra: expanding three brackets
		21 - Algebraic Fractions: addition
		22 - Algebraic Fractions: division
		23 - Algebraic Fractions: Multiplication
2	Surds	305 - Surds: intro, rules, simplifying
		307 - Surds: rationalising denominators
		308 - Surds: expanding brackets
3	Rules of indices	173 - Indices: fractional
		174 - Indices: laws of
		175 - Indices: negative
4	Factorising expressions	119a - Factorisation: splitting the middle
		120 - Factorisation: difference of 2 squares
		24 - Algebraic Fractions: Simplifying
5	Completing the square	10 - Algebra: completing the square
6	Solving quadratic equations	266 - Quadratics: solving (factorising)
		267 - Quadratics: formula
		267a - Quadratics: solving (completing the square)
7	Sketching quadratic graphs	265 - Quadratic graphs: sketching using key points
		371 - Quadratic graph (completing the square)
8	Solving linear simultaneous equations	295 - Simultaneous equations (elimination)
		296 - Simultaneous equations (substitution, both linear)
9	Solving quadratic simultaneous equations	12 - Algebra: equation of a circle
		298 - Simultaneous equations (advanced)
10	Solving simultaneous equations graphically	297 - Simultaneous equations (graphical)
11	Linear inequalities	180 - Inequalities: graphical y>a or x>a
		181 - Inequalities: graphical y>x+a
		182 - Inequalities: region
12	Quadratic inequalities	378 - Inequalities: quadratic
13	Sketching cubic and reciprocal graphs	344 – Types of graph: cubics
		346 - Types of graph: reciprocal
14	Translating graphs	323 - Transformations of graphs
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15	Straight line graphs	194 - Linear graphs: find equation of a line
		195 - Linear graphs: equation through 2 points
16	Parallel and perpendicular lines	196 - Linear graphs: parallel lines
		197 - Linear graphs: perpendicular lines
		372 - Equation of a Tangent to a Circle
17	Pythagoras' Theorem	259 - Pythagoras: 3D
		260 - Pythagoras: rectangles/isosceles triangles
		263 - Pythagoras: distance points
18	Direct and inverse proportion	254 - Proportion: direct
		255 - Proportion: inverse
19	Circle theorems	64 - Circle theorems – theorems
		65 - Circle theorems – examples
20	Trigonometry	332 - Trigonometry: 3D
		338 - Trigonometry: Sine graph
		339 - Trigonometry: Cosine graph
		340 - Trigonometry: Tangent graph
		333 - Trigonometry: sine rule (sides)
		334 - Trigonometry: sine rule (angles)
		334a - Trigonometry: sine rule (ambiguous case)
		335 - Trigonometry: cosine rule (sides)
		336 - Trigonometry: cosine rule (angles)
21	Rearranging equations	111 - Equations: involving fractions
		112 - Equations: fractional advanced
		112 - Equations: cross multiplication
22	Volume and surface area of 3D shapes	359 - Volume: cone
		360 - Volume: pyramid
		360a - Volume: Frustum
		361 - Volume: sphere
		313 - Surface area: sphere
		314 - Surface area: cone
		315 - Surface area: cylinders
23	Area under a graph and gradients	389 - Area under a Graph
		390a - Instantaneous Rate of Change