

Year 11 Preparing for A-level Maths Home-Learning Course

	Topics to Prepare for A-level Maths	First watch these videos on Corbett Maths (corbettmaths.com)	Then do the written exercises on these pages in the 'A-level Maths Transition Booklet'
1	Manipulating algebraic expressions	15 - Algebra: expanding three brackets 21 - Algebraic Fractions: addition 22 - Algebraic Fractions: division 23 - Algebraic Fractions: Multiplication	2 - 4
2	Surds	305 - Surds: intro, rules, simplifying 307 - Surds: rationalising denominators 308 - Surds: expanding brackets	5 - 9
3	Rules of indices	173 - Indices: fractional 174 - Indices: laws of 175 - Indices: negative	10 - 14
4	Factorising expressions	119a - Factorisation: splitting the middle 120 - Factorisation: difference of 2 squares 24 - Algebraic Fractions: Simplifying	15 - 18
5	Completing the square	10 - Algebra: completing the square	19 - 21
6	Solving quadratic equations	266 - Quadratics: solving (factorising) 267 - Quadratics: formula 267a - Quadratics: solving (completing the square)	22 - 27
7	Sketching quadratic graphs	265 - Quadratic graphs: sketching using key points 371 - Quadratic graph (completing the square)	29 - 32
8	Solving linear simultaneous equations	295 - Simultaneous equations (elimination) 296 - Simultaneous equations (substitution, both linear)	33 - 36
9	Solving quadratic simultaneous equations	12 - Algebra: equation of a circle 298 - Simultaneous equations (advanced)	38 - 40
10	Solving simultaneous equations graphically	297 - Simultaneous equations (graphical)	41 - 44
11	Linear inequalities	180 - Inequalities: graphical $y > a$ or $x > a$ 181 - Inequalities: graphical $y > x + a$ 182 - Inequalities: region	45 - 47

12	Quadratic inequalities	378 - Inequalities: quadratic	48 - 50
13	Sketching cubic and reciprocal graphs	344 – Types of graph: cubics 346 - Types of graph: reciprocal	51 - 55
14	Transformation of graphs	323 - Transformations of graphs	56 - 58 59 - 62
15	Straight line graphs	194 - Linear graphs: find equation of a line 195 - Linear graphs: equation through 2 points	66 - 69
16	Parallel and perpendicular lines	196 - Linear graphs: parallel lines 197 - Linear graphs: perpendicular lines 372 - Equation of a Tangent to a Circle	70 - 73
17	Pythagoras' Theorem	259 - Pythagoras: 3D 260 - Pythagoras: rectangles/isosceles triangles 263 - Pythagoras: distance points	74 - 77
18	Removed		
19	Removed		
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)	93 - 104
21	Rearranging equations	111 - Equations: involving fractions 112 - Equations: fractional advanced 112 - Equations: cross multiplication	105 - 08
22	Area under a graph and gradients	389 - Area under a Graph 390a - Instantaneous Rate of Change	114 - 19