

## Revision (5–6 weeks from exam)

Session	Topic	Subtopic	Important Lessons	Done
1	Topic 1: Mathematical Induction	Proof by Mathematical Induction	<u>Induction Proof for Divisibility</u>	<input type="checkbox"/>
2	Topic 2: Complex Numbers	Cartesian and Polar Forms	<u>Modulus-Argument Form Division and Identities</u> , De Moivre's Theorem ( <u>Example 1</u> ) and ( <u>Example 2</u> )	<input type="checkbox"/>
3		The Complex (Argand) Plane	Regions in the Argand Diagram ( <u>Part 1</u> ) and ( <u>Part 2</u> )	<input type="checkbox"/>
4		Roots of Complex Numbers	<u>Complex Roots of Quadratics With Real Coefficients</u>	<input type="checkbox"/>
		Factorisation of Polynomials	<u>Factor Theorem and Remainder Theorem</u>	<input type="checkbox"/>
5	Topic 3: Functions and Sketching Graphs	Composition of Functions	<u>Domain and Range of Composite Functions</u>	<input type="checkbox"/>
		One-To-One Functions	<u>Inverse Functions - Exam Application</u>	<input type="checkbox"/>
		Sketching Graphs	<u>Functions of the Form <math>Y=F( X )</math></u>	<input type="checkbox"/>
6	Topic 4: Vectors in Three Dimensions	The Algebra of Vectors in Three Dimensions	<u>Magnitude in 3-D</u>	<input type="checkbox"/>
		Vector and Cartesian Equations	<u>Applying the Equation of a Plane</u>	<input type="checkbox"/>
		Systems of Linear Equations		<input type="checkbox"/>
7	Topic 5: Integration Techniques and Applications	Integration Techniques	<u>Integrating the Inverse Trigonometric Functions</u> , Integration by Parts ( <u>Part 1</u> ) and ( <u>Part 2</u> )	<input type="checkbox"/>
		Applications of Integral Calculus	<u>Volumes for Solids of Revolution</u>	<input type="checkbox"/>
8	Topic 6: Rates of Change and Differential Equations	Implicit Differentiation		<input type="checkbox"/>
		Differential Equations	<u>Solving Differential Equations: Separation of Variables</u>	<input type="checkbox"/>
		Pairs of Varying Quantities - Polynomials of Degree 1 to 3		<input type="checkbox"/>
		Related Rates, Velocity, and Tangents		<input type="checkbox"/>
		Trigonometric Parameterisations		<input type="checkbox"/>



Practice (3–4 weeks from exam)

Session	Topic	Subtopic	Confidence	Done
9	Topic 1: Mathematical Induction	Proof by Mathematical Induction	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
10	Topic 2: Complex Numbers	Cartesian and Polar Forms	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		The Complex (Argand) Plane	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
11		Roots of Complex Numbers	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Factorisation of Polynomials	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
12	Topic 3: Functions and Sketching Graphs	Composition of Functions	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		One-To-One Functions	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Sketching Graphs	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
13	Topic 4: Vectors in Three Dimensions	The Algebra of Vectors in Three Dimensions	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
14		Vector and Cartesian Equations	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Systems of Linear Equations	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
15	Topic 5: Integration Techniques and Applications	Integration Techniques	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Applications of Integral Calculus	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
16	Topic 6: Rates of Change and Differential Equations	Implicit Differentiation	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Differential Equations	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Pairs of Varying Quantities - Polynomials of Degree 1 to 3	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Related Rates, Velocity, and Tangents	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>
		Trigonometric Parameterisations	<div><div></div><div></div><div></div><div></div><div></div></div>	<div><div></div></div>