

Fifth Year Maths – Higher Level – DON/EL

Revision List for Summer Test 2017

TOPIC	CHAPTERS IN BOOK
Algebra 1 <ul style="list-style-type: none"> - Polynomial expressions - Polynomial functions - Factorising algebraic expressions - Simplifying algebraic fractions - Algebraic identities - Manipulating formulae - Solving equations 	Text & Tests 6, Chapter 1 (section 1.7 not included)
Algebra 2 <ul style="list-style-type: none"> - Quadratic equations - Nature of quadratic roots - Solving quadratic and linear equations - Quadratic and linear equations in context - Forming quadratic equations from their roots - Max and min of quadratic graphs - Surds - Algebraic surd equations - Factor Theorem - Graphs of cubic polynomials 	Text & Tests 6, Chapter 2
Coordinate geometry – the line <ul style="list-style-type: none"> - Revision of formulae - Area of a triangle - Equation of a line - Dividing a line into a given ratio - Concurrencies of a triangle - Perpendicular distance from point to line - Angle between two lines - Using linear relationships to solve problems 	Text & Tests 4, Chapter 1
Coordinate geometry – the circle <ul style="list-style-type: none"> - Equation of circle with centre (0,0) - Equation of circle with centre (h, k) and radius r - Finding equation of circle - Tangents to a circle - Lines and circles – common chord - Touching circles – chords and circles - Circles touching the x or y axis 	Text & Tests 4, Chapter 4
Complex numbers <ul style="list-style-type: none"> - Complex numbers - Division of complex numbers - Argand diagram, modulus - Transformations of complex numbers 	Text & Tests 6, Chapter 3 (Section 3.1 not included)

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<ul style="list-style-type: none">- Conjugate roots theorem- Polar form of complex numbers Complex numbers (continued) <ul style="list-style-type: none">- Product and quotients of complex numbers in polar form- DeMoivre's Theorem- Applications of DeMoivre's Theorem	
Geometry 1 <ul style="list-style-type: none">- Angles, triangles and parallelograms- Theorems involving triangles and parallelograms- Ratio theorems- Circle theorems- Formal proofs of theorems	Text & Tests 4, Chapter 3
Geometry 2 <ul style="list-style-type: none">- Enlargements- Constructions	Text & Tests 4, Chapter 6
Probability <ul style="list-style-type: none">- Permutations and combinations- Elementary probability, experimental probability- Addition rule, multiplication law- Conditional probability- Tree diagrams- Expected value- Bernoulli trials- Independent events- Probability with permutations and combinations- Normal distribution	Text & Tests 5, Chapter 1, Chapter 3
Trigonometry <ul style="list-style-type: none">- Radian measure- Revision of Junior Cert material- Trig equations- Sin rule, cosine rule- 3D Problems- Graphing, practical applications	Text & Tests 4, Chapter 2 Note: Topics in this area will not be examined in summer test if they are not covered during the final term.