

Year 10 Mathematics

A study guide for Semester 1, 2011

Topic	Concepts	Chapters	Mathletics
1. Trigonometry	<ul style="list-style-type: none"> * labelling sides of a right angle triangle * trigonometric ratios, esp. common angles * find the side of a right angled triangle * finding the angle of a right angled triangle * using degrees, minutes and seconds * angles of elevation and depression * trig ratios of obtuse angles * Sine Rule, Cosine Rule and Area Rule 	1, 9	Trigonometry-all Further Trigonometry – all except sine and cosine curves
2. Consumer Arithmetic	<ul style="list-style-type: none"> * simple interest * compound interest * depreciation * loans (car, homes etc) * reducible interest 	4	Consumer Arithmetic - all
3. Mixed Algebra	<ul style="list-style-type: none"> * expanding and simplifying * factorising expressions with 2, 3 and 4 terms 	1	
4. Quadratic equations	<ul style="list-style-type: none"> * factorisation * completing the square * the quadratic formula * problems 	2	Binomials and Quadratics - all
5. Simultaneous Equations	<ul style="list-style-type: none"> * solve graphically * elimination method * substitution method * problems 	1	Equations and Inequalities – Simultaneous Equations 1 and 2
6. Graphing parabolas	<ul style="list-style-type: none"> * $y = ax^2 + bx + c$ * intercepts, axis, vertex, points * simple parabolas - more involved parabolas 	5	Graphs and Regions – Vertex of a Parabola, Graphing Parabolas
7. Review of Year 9 Work	<ul style="list-style-type: none"> * Number - Order of Operations, Fractions, Decimals, Percentages, Indices, Ratios, Rates, Significant Figures, Scientific Notation, Estimation, Approximation * Algebra – Expressions, Indices * Consumer Arithmetic 	1	Number - all

Tips for Studying

- Revisit topic tests and assignments
- Diagnostic Tests and Challenge Exercises are located at the end of each textbook chapter
- Revision Sheets
- Mathletics – but remember you must show working in an exam