

Year 8 Mathematics (8M3)

Study Guide - Semester 2, 2010

Topic	Concepts
Review of Year 7 work	* fractions, decimals, integers (positive & negative numbers) * money * easy fractions
Calculator	* do you know how to use your calculator correctly?
Pythagoras Theorem	* labelling the hypotenuse * calculating the hypotenuse * lengths of a shorter side * problem solving using Pythagoras
Percentages	* converting between fractions, decimals and percentages * find the percentage of a quantity * percentage increase and decrease * problem solving using percentages: profit, loss, discount * simple interest ('MIT' rule)
Algebra	* working with rules & tables * + and – like terms * multiplication of terms * division of terms * expanding ()
Perimeter, Area & Time	* metric system units * find perimeter of basic and composite shapes * areas of triangles and quadrilaterals (eg rectangle etc) * units of time * calculations involving time
Ratio & Rates	* write ratios, simplify ratios * share quantity in ratio * solve simple ratio problems * recognise rates, simplify rates * speed & travel graphs
Data 1: tables, graphs	* collect, sort, organise data * display data as graphs * analyse data graphs e.g. find an outlier
Equations	* 'building' expressions & 'backtracking' * solve equations by 'looking & thinking' * solve equations using 'backtracking' (1 step, 2-step, 3-step) * solve simple problems by equations
Coordinate Systems	* grid systems & maps * the number * tables of values & graphing * find point where two lines intersect
Data 2 : more displays	* frequency tables * averages
Working Mathematically	* mixed level questions getting you to think!!