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|  | **Western Mathematics**  **2014**  **Year 10**  **Yearly Examinations**  **Mathematics and Advanced Maths Courses**  **Mapping Grids** |
|  | The two exams have 50% of their content in common, which allows for comparision between students of a similar ability in the different courses, for allocation of grades etc. The common sections are highlighted in yellow. All of the short answer, non-calculator section is common, and the last 25 MC questions in the Mathematics paper are common with the first 25 MC questions in the Advanced Maths Paper (ie question 51 on the Mathematics paper is the same as question 26 on the Advanced paper).  Some schools do not persist with non-calculator sections after the NAPLAN stages, but we feel it is still worthwhile. If you prefer, just call the first section the Short Answer Section.  All questions are in cells in a table, so can easily be substituted with another from the Assessment Bank if the topic has not been covered.  The questions in the Multiple Choice Section are grouped together according to the strands.  Any feedback would be appreciated, as it will help with future papers.  All the best    Garry Thorn  WME |

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| **Section 1**  Short Answer  Non Calculator Section. | | |
|  | **Year 10 Maths Course** | **Year 10 Advanced Course** |
|  | Integers | Integers |
|  | Order of Operations | Order of Operations |
|  | Fractions | Fractions |
|  | Percentages | Percentages |
|  | Ratio and Rates | Ratio and Rates |
|  | Basic Geometry - Angles | Basic Geometry - Angles |
|  | Transformation Geometry | Transformation Geometry |
|  | Geometric construction - Quadrilateral | Geometric construction - Quadrilateral |
|  | Basic Geometry - Triangles | Basic Geometry - Triangles |
|  | Basic Measurement - Units | Basic Measurement - Units |
|  | Perimeter - measure and calculate | Perimeter - measure and calculate |
|  | Area of triangle | Area of triangle |
|  | Pythagoras’ Theorem | Pythagoras’ Theorem |
|  | Volume of Prism – Working Backward | Volume of Prism – Working Backward |
|  | Basic Algebra – Collect Like Terms | Basic Algebra – Collect Like Terms |
|  | Basic Algebra – Expand and Simplify | Basic Algebra – Expand and Simplify |
|  | Algebraic Fraction | Algebraic Fraction |
|  | Coordinate Geometry - distance | Coordinate Geometry - distance |
|  | Equations | Equations |
|  | Basic Probability | Basic Probability |
|  | Probability (Complimentary events) | Probability (Complimentary events) |
|  | Collecting Data Stem and Leaf | Collecting Data Stem and Leaf |
|  | Representing Data – divided bar graph | Representing Data – divided bar graph |
|  | Measures of Central Tendency | Measures of Central Tendency |
|  | Measures of Spread – Interquartile Range | Measures of Spread – Interquartile Range |

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| **Section 2**  **Part A**  Multiple Choice Section. | | |
|  | **Year 10 Maths Course** | **Year 10 Advanced Course** |
|  | Integers | Earning |
|  | Rates | Spending |
|  | Earning | Compound Interest |
|  | Simple Interest | Depreciation |
|  | Basic Geometry Angles | Taxation |
|  | Basic Geometry -Triangles | Basic Geometry Triangles |
|  | Basic Geometry -Quadrilaterals | Basic Geometry Quadrilaterals |
|  | Similarity | Basic Geometry Congruence |
|  | Congruence | Similarity |
|  | Basic Geometry -Transformations | Composite Area |
|  | Composite Area | Volume of Cone |
|  | Volume of Prisms | Surface Area of Prism |
|  | Pythagoras’ Theorem | Right Triangle Trigonometry |
|  | Right Triangle Trigonometry | Right Triangle Trigonometry |
|  | Volume of Pyramid | Expand grouping symbols |
|  | Basic Algebraic Techniques | Algebraic Fraction |
|  | Coordinate Geometry | Coordinate Geometry – equation of lines |
|  | Indices | Distance Time Graphs |
|  | Formulae | Indices |
|  | Non Linear Graphs | Inequalities |
|  | Basic Probability | Basic Probability |
|  | Collecting Data | Basic Probability |
|  | Representing Data – Column Graph | Mean – Grouped Frequency Table |
|  | Measures of Central Tendency Frequency Histogram | Comparing measures |
|  | Bivariate Data –Independent VariableTime | Bivariate Data – Scatterplot |
|  | Earning | Credit Card Interest |
|  | Spending | Surds and Indices |
|  | Compound Interest | Surds |
|  | Depreciation | Basic Geometry Triangles |
|  | Taxation | Basic Geometry Polygons |
|  | Basic Geometry Triangles | Congruence |
|  | Basic Geometry Quadrilaterals | Volume Composite Solid |
|  | Basic Geometry Congruence | Surface Area of Pyramids. |
|  | Similarity | Cosine Rule – side |
|  | Composite Area | Sine Rule – angle |
|  | Volume of Cone | Coordinate Geometry |
|  | Surface Area of Prism | Binomial Products |
|  | Right Triangle Trigonometry | Binomial Factors |
|  | Right Triangle Trigonometry | Simultaneous Equations |
|  | Expand grouping symbols | Simultaneous Equations |
|  | Algebraic Fraction | Graphs of Physical Phenomena |
|  | Coordinate Geometry – equation of lines | Quadratic Equations |
|  | Distance Time Graphs | Quadratic Equations |
|  | Indices | Non Linear Graphs |
|  | Inequalities | Matching Equation with graph - Hyperbola |
|  | Basic Probability | Probability – Two way table |
|  | Basic Probability | Probability – Venn Diagram |
|  | Mean – Grouped Frequency Table | Measures of Spread – SD |
|  | Comparing measures | Shape of distribution |
|  | Bivariate Data – Scatterplot | Compare distributions |

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| **Section 2**  **Part B**  Longer Answer Section. | | | | |
|  | **Year 10 Maths Course** | | **Year 10 Advanced Course** | |
|  | Financial Maths (N) | 3 | Surds (N) | 3 |
|  | Coordinate Geometry (A) | 4 | Similarity (G) | 2 |
|  | Volume of a Cylinder (M)  Application of rates. | 3 | Surface Area of a Cone.(M) | 2 |
|  | Right Trigonometry (M) | 4 | Algebraic Fraction with Binomial Factors (A) | 2 |
|  | Probability (P) | 2 | Congruence and Deductive Reasoning (G) | 3 |
|  | Data: Measures of Central Tendency and Spread. (D) | 3 | Non Right Triangle Trig (M)  Sine rule – side | 2 |
|  | Geometric Reasoning (G) | 3 | Non Right Triangle Trig (M)  Cos Rule – angle | 2 |
|  | Similarity (G) | 3 | Quadratic Relations (A) | 3 |
|  |  |  | Further Probability – Counting Techniques (D) | 2 |
|  |  |  | Data: Measures of Central Tendency and Spread. (D) | 3 |