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|  | **Western Mathematics**  **2015 Year 10**  **Half Yearly Examination**  **Mathematics Courses**  **Mapping Grids** |
|  | The Half Yearly Exams are denoted as the Mathematics and Advanced Mathematics courses. These correspond to the Core Year 9 – 10 course for the Australian Curriculum and the 10A Course which has additional topics. This corresponds basically to the 5.2 and 5.3 courses in NSW.  The Mathematics and Advanced Mathematics exams are both 2 hour exams of 100 marks and 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. All 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.  Some schools do not persist with non-calculator sections after the NAPLAN stages, but we feel it is still worthwhile. If you don’t want non-calculator, just change the name of the first section to Short Answer Section.  We anticipate that many schools will not be running full 2 hour exams, but due to the different content covered at the time of the half yearlys, you should be able to take out the topics you don’t want to include and still have substantial exams. If you want to add content, it can be taken from the Assessment Bank topic tests.  Any feedback would be appreciated, as it will help with future papers, in particular for the Year 10 Yearly exam, which will be of a similar format.  All the best  Garry Thorn  WME |

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|  | **Year 10 Maths Course** | **Year 10 Advanced Course** |
|  | **Short Answer (Common)** | **Short Answer (Common)** |
|  | Order of Operations | Order of Operations |
|  | Rational numbers - Fractions | Rational numbers - Fractions |
|  | Rational numbers - Decimals | Rational numbers - Decimals |
|  | Earning – Wages | Earning – Wages |
|  | Financial Maths - Discount | Financial Maths - Discount |
|  | Financial Maths - | Financial Maths - |
|  | Ratio and Rates | Ratio and Rates |
|  | Basic Geometry Angles | Basic Geometry Angles |
|  | Basic Geometry Triangles | Basic Geometry Triangles |
|  | Basic Geometry Polygons | Basic Geometry Polygons |
|  | Basic Measurement Units | Basic Measurement Units |
|  | Perimeter | Perimeter |
|  | Area Triangle | Area Triangle |
|  | Volume of Prisms | Volume of Prisms |
|  | Pythagoras’ Theorem | Pythagoras’ Theorem |
|  | Basic Algebra Collecting like terms | Basic Algebra Collecting like terms |
|  | Basic Algebra Multiplication/Division | Basic Algebra Multiplication/Division |
|  | Basic Algebra Expand Brackets | Basic Algebra Expand Brackets |
|  | Coordinate Geometry – midpoint | Coordinate Geometry |
|  | Indices | Indices |
|  | Equations and Inequalities | Equations and Inequalities |
|  | Basic Probability | Basic Probability |
|  | Representing Data - Line Graph | Representing Data - Line Graph |
|  | Representing Data - Line Graph | Representing Data - Line Graph |
|  | Measures of Central Tendency | Measures of Central Tendency |
|  | **Multiple Choice** | **Multiple Choice** |
|  | Rational numbers – Conversions | Rational Numbers – Prime factors |
|  | Rational numbers – Percentages | Earning money - Commission |
|  | Ratio and rates – simplify | Time Payments |
|  | Financial Maths – simple interest | Simple interest – finding the rate |
|  | Financial Maths – profit | Ratio and Rates – Divide in a ratio |
|  | Basic Geometry Angles | Basic Geometry – Triangles |
|  | Basic Geometry Shapes | Basic Geometry Congruence |
|  | Basic Geometry Transformations | Basic Geometry – Reasoning |
|  | Basic Geometry Triangles | Basic Geometry – Polygons |
|  | Basic Geometry – Quadrilateral | Volume of Cylinder |
|  | Area | Surface Area of Triangular Prism |
|  | Compound Area | Volume of Prism |
|  | Volume of Prism | Right Triangle Trigonometry |
|  | Pythagoras’ Theorem | Right Triangle Trigonometry |
|  | Right Triangle Trigonometry | Bearings |
|  | Basic Algebra Substitution | Factors |
|  | Basic Algebraic Factors | Linear Function |
|  | Coordinate Geometry – Gradient | Linear Function |
|  | Indices combined operations | Algebraic Fractions |
|  | Equations and Inequalities | Equations and Inequalities |
|  | Representing Data - Column Graph | Measures of Central Tendency - S & L |
|  | Representing Data - Column Graph | Measures of Central Tendency - S & L |
|  | Measures of Central Tendency | Measures of Spread – S & L -Quartiles |
|  | Measures of Central Tendency  Stem and Leaf | Representing Data – Skew /shape |
|  | Measures of Spread – Quartiles | Central Tendency – Comparing mean median etc |
|  | Rational Numbers – Prime factors | Compound Interest |
|  | Earning money - Commission | Depreciation |
|  | Time Payments | Indices |
|  | Simple interest – finding the rate | Surds and indices |
|  | Ratio and Rates – Divide in a ratio | Surds |
|  | Basic Geometry – Triangles | Basic Geometry Triangles |
|  | Basic Geometry Congruence | Basic Geometry Circle |
|  | Basic Geometry – Reasoning | Pythagoras Theorem - Area |
|  | Basic Geometry – Polygons | Right Triangle Trigonometry |
|  | Volume of Cylinder | Surface Area of a Sphere. |
|  | Surface Area of Triangular Prism | Volume of a Pyramid |
|  | Volume of Prism | Binomial Products |
|  | Right Triangle Trigonometry | Binomial Factors |
|  | Right Triangle Trigonometry | Binomial Factors – Algebraic Fraction |
|  | Bearings | Simultaneous Equations |
|  | Factors | Quadratic Equations |
|  | Linear Function | Quadratic Equations |
|  | Linear Function | Graphs of Physical Phenomena |
|  | Algebraic Fractions | Graphs of Physical Phenomena |
|  | Equations and Inequalities | Non Linear Graphs |
|  | Measures of Central Tendency - S & L | Basic Probability – Venn diagram |
|  | Measures of Central Tendency - S & L | Basic Probability– Venn diagram |
|  | Measures of Spread – S & L -Quartiles | Box Plots |
|  | Representing Data – Skew /shape | Measures of Spread – Standard Deviation |
|  | Central Tendency – Comparing mean median etc | Analysis of Mean and Standard Deviation |

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|  | **Longer Answer Questions** | | **Longer Answer Questions** | |
|  | Financial Maths- Best Buy (N) | 3 | Surds (N) | 3 |
|  | Geometry (G) | 3 | Surface Area and Volume of Cone.(M) | 3 |
|  | Surface Area and Volume of Prisms and Cylinder (M) | 3 | Right Triangle Trigonometry (M) | 3 |
|  | Right Trigonometry (M) | 4 | Compound Interest and Depreciation (N) | 2 |
|  | Basic Probability (P) | 2 | Binomial Products and Factors including algebraic fractions (A) | 4 |
|  | Data: Measures of Central Tendency and Spread. (D) | 3 | Quadratic Equations (A) | 4 |
|  | Algebra – Factorising (A) | 4 | Non Linear Graphs (A) | 3 |
|  | Algebra – Equations (A) | 3 | Data: Measures of Central Tendency and Spread. (D) | 3 |
|  | Coordinate Geometry (A) |  |  |  |