|  |  |
| --- | --- |
|  | **Western Mathematics**  **2015 Year 10**  **Yearly Examination**  **Mathematics Courses**  **Mapping Grids** |
|  | The Yearly Exams are denoted as being for 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 fields with the course names are editable on the exam and can be changed to describe the respective course you are assessing.  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 next years papers, which we anticipate will be of a similar format, subject to the results of your feedback.  All the best  Garry Thorn  WME |

|  |  |  |
| --- | --- | --- |
|  | **Year 10 Maths Course** | **Year 10 Advanced Course** |
|  | **Short Answer (Common)** | **Short Answer (Common)** |
|  | Rational numbers  Fraction to decimal |  |
|  | Rational numbers  Percentage of a quantity |  |
|  | Earning & Spending  Wages |  |
|  | Basic Geometry – Angles at a point |  |
|  | Basic Geometry – Angle sum triangle |  |
|  | Basic Measurement – mass |  |
|  | Area of triangle |  |
|  | Volume of Prism |  |
|  | Basic Algebraic Techniques |  |
|  | Basic Algebraic Techniques |  |
|  | Coordinate Geometry – Gradient |  |
|  | Indices |  |
|  | Equations and Inequalities |  |
|  | Representing Data – Dot plot |  |
|  | Measures of Central Tendency – Median |  |
|  | Ratio and Rates |  |
|  | Coordinate Geometry - Distance |  |
|  | Right Triangle Trigonometry |  |
|  | Surface Area of Prisms |  |
|  | Volume of Pyramids |  |
|  | Transformation - Construction |  |
|  | Basic Probability |  |
|  | Linear Graphs |  |
|  | Non- Linear Graphs |  |
|  | Similarity |  |
|  | **Multiple Choice** | **Multiple Choice** |
|  | Rational numbers | Rational numbers |
|  | Rational numbers | Earning & Spending - overtime |
|  | Earning & Spending – annual income | Basic Geometry – Exterior angle |
|  | Earning & Spending - commission | Basic Geometry – Isosceles triangle |
|  | Basic Geometry - Quadrilateral | Basic Measurement - Time |
|  | Basic Measurement – Area Units | Area of compound shape |
|  | Area of Kite | Basic Algebra – Substitution |
|  | Basic Algebra – Like terms | Basic Algebra – Algebraic fractions |
|  | Congruence | Coordinate Geometry -Linear Graphs |
|  | Basic Algebra - Expand brackets | Scientific Notation |
|  | Bivariate data Time | Inequalities |
|  | Coordinate Geometry - Midpoint | Collecting and Representing Data |
|  | Indices | Measures Spread – Interquartile Range |
|  | Equations | Basic Probability |
|  | Ratios – Equivalent ratios | Right Triangle Trigonometry - Angle of Elevation |
|  | Collecting and Representing Data | Right Triangle Trigonometry – Bearings |
|  | Measures of Central Tendency -Mean | Depreciation |
|  | Right Triangle Trigonometry | Rates - Speed |
|  | Right Triangle Trigonometry | Volume of Spheres. |
|  | Compound Interest | Surface Area - Compound Solid |
|  | Surface Area of Cylinder | Data - Box plot |
|  | Volume Cone | Coordinate Geometry – Parallel lines |
|  | Basic Probability | Non Linear graphs |
|  | Similarity | Similarity |
|  | Distance Time Graphs | Bivariate Data |
|  | Rational numbers | Coordinate Geometry – Perpendiculars |
|  | Earning & Spending - overtime | Indices |
|  | Basic Geometry – Exterior angle | Equations |
|  | Basic Geometry – Isosceles triangle | Measures of Spread – Standard Deviation |
|  | Basic Measurement - Time | Binomial Products |
|  | Area of compound shape | Non Linear Graphs |
|  | Basic Algebra – Substitution | Quadratic Equations |
|  | Basic Algebra – Algebraic fractions | Simultaneous Equations |
|  | Coordinate Geometry -Linear Graphs | Graphs of Physical Phenomena |
|  | Scientific Notation | Surds |
|  | Inequalities | Surface Area Cone |
|  | Collecting and Representing Data | Inequations |
|  | Measures Spread – Interquartile Range | Binomial Products |
|  | Basic Probability | Compound Interest |
|  | Right Triangle Trigonometry - Angle of Elevation | Comparing distributions – Mean and Standard Deviation |
|  | Right Triangle Trigonometry – Bearings | Non Right Angled Triangle Trigonometry |
|  | Depreciation | Congruence and Deductive Geometry |
|  | Rates - Speed | Further Probability – Counting Techniques |
|  | Volume of Spheres. | Coordinate Geometry – Equation of Line |
|  | Surface Area - Compound Solid | Similarity |
|  | Data - Box plot | Non Right Angled Triangle Trigonometry |
|  | Coordinate Geometry – Parallel lines | Coordinate Geometry – Property of shape |
|  | Non Linear graphs | Further Probability – Counting Techniques |
|  | Similarity | Quadratic Equations |
|  | Bivariate Data | Non Linear Graphs |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Longer Answer Questions** | | **Longer Answer Questions** | |
|  | Data: Measures of Central Tendency and Spread. | 4 | Data: Measures of Central Tendency and Spread inc Grouped Data. | 4 |
|  | Basic Measurement  Area Surface Area and Volume of Prisms and Cylinders | 3 | Algebra and Linear Equations | 4 |
|  | Equations | 4 | Congruence | 2 |
|  | Compound Interest | 2 | Non Right Angled Triangle Trigonometry | 3 |
|  | Similarity | 2 | Further Probability – Counting Techniques | 3 |
|  | Right Triangle Trigonometry | 4 | Coordinate Geometry | 2 |
|  | Coordinate Geometry | 4 | Quadratic Equations |  |
|  | Geometric Reasoning | 2 | Non Linear Graphs |  |