

Year 8 Mathematics

Assessment Task 3 – 2024

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| **TOPIC**: Rates and Ratios, Equations and Linear Relationships | **MARKS:** 50 |
| **SUBMISSION REQUIREMENTS:**  Due Term 3 Week 9  Thursday - 8MATC and 8MATK  Friday – 8MATB, 8MATG, 8MATM, 8MATN, 8MATW, 8MATY | |
| **OUTCOMES TO BE ASSESSED:**   * + - * MA4-3WM **Recognises** and **explains** mathematical relationships using reasoning. * MA4-7NA **Operates** with ratios and rates and **explores** their graphical representation * MA4-10NA **Uses** algebraic techniques to **solve** simple linear and quadratic equations * MA4-11NA **Creates** and **displays** number patterns, graphs and **analyses** linear relationships and performs transformations on the Cartesian plane. | |
| **Directional Verbs:**  Operate - To calculate by mathematical methods.  Uses – Take, hold or display as a means of accomplishing or achieving.  Create – To arrange or bring about by design.  Explain -Relate cause and effect.  Solve – Find an answer to.  Display – To present.  Analyse- Identify components and the relationship between them; draw out and relate implications. | |
| **TASK DESCRIPTION:**  Test consisting of:  Section A – Rates and Ratios (10 Questions totalling 17 marks) Section B – Equations (3 Questions totalling 20 marks) Section C – Linear Relationships (6 Questions totalling 13 marks)  The test will be completed in class on the assigned date set and will be collected at the end of the lesson.  **Students may bring a calculator to use during the task**  Equipment required: **Calculator - Ruler - Pen - Pencil - Eraser** | |
| **ASSESSMENT CRITERIA:**  You will be marked on your ability to answer the questions correctly.  Show relevant mathematical working, reasoning and/or calculations.  You are encouraged to revise the following concepts learnt in class.   |  |  |  | | --- | --- | --- | | **Rates and Ratios** | **Equations** | **Linear Relationships** | | * Equivalent Ratios * Simplifying Ratios * Dividing Ratio into a Quantity * Unitary Method * Application Using Ratios * Travel Graphs-Distance/Time   Graphs | * Linear Equations * Equations with Fractions * Equations with Brackets * Simple Quadratic Equations * Formulas and Relationship * Application – Worded Problems * Inequalities | * Translation * Reflection * Table of Values * Deriving Rules * Geometric Pattern * Vertical and Horizontal Lines | | |