

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 8MATKFriday – 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.
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| **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.

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| **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
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