**Year 10 Mathematics 5.2**

**Assessment Task 1 - 2024**

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| **TOPICS**:   * Bivariate Data Analysis * Trigonometry * Algebraic Techniques and Indices | **MARKS:** /46 |
| **DATE:**  Term 1 – Week 9 – Tuesday 26th March L2 period 2  R2 period 3  **In class TEST with study guide** |
| **OUTCOMES TO BE ASSESSED:**  **MA5.2-2WM** - **Interprets** mathematical or real-life situations, systematically applying appropriate strategies to solve problems  **MA5.2-16SP** **– Investigates** relationships between two statistical variables including their relationship over time  **MA5.2-13MG** **– Applies** trigonometry to solve problems including problems involving bearings  **MA5.2-6NA** **– Simplifies** algebraic fractions, expands and factorises quadratic expressions  **MA5.2-7NA** – **Applies** index laws to operate with algebraic expressions involving integer indices.  **DIRECTIONAL VERBS:**  **Apply** -Use, utilise, employ in a particular situation  **Interpret** - Draw meaning from  **Determine** - Find out exactly  **Investigate** - Examine, study  **Simplify** -To reduce the expression/fraction to a simpler form | |
| **TASK DESCRIPTION**  Class test consisting of:   * **Section 1: Bivariate Data - 16 Marks**   + 4 multiple choice questions (4 marks)   + 9 short answer questions (12 marks) * **Section 2: Trigonometry – 16 Marks**   + 4 multiple choice questions (4 marks)   + 5 short answer questions (12 marks) * **Section 3: Algebraic techniques and indices – 12 Marks**   + 4 multiple choice questions (4 marks)   + 4 short answer questions (8 marks) * **Summary sheet – 2 marks**   **The TEST will be for ONE lesson.**  Equipment required:  **Calculator - Ruler - Pen - Pencil - Eraser** | |
| **ASSESSMENT CRITERA**  Show relevant mathematical working, reasoning and/or calculations.  You are encouraged to revise the following concepts learnt in class.   |  |  | | --- | --- | | **Bivariate Data Analysis** | **Trigonometry** | | * Plotting time-series data and other bivariate data from table of values * Interpret trend in time-series graph and scatterplot * Describe trend in bivariate plots * Draw a ´line of best fit´ by eye * Estimate values using the line of best fit | * Use the trigonometric ratios to find a shorter side and the hypotenuse * Use the trigonometric ratios to find the missing angle * Solve problems involving angles of elevation and depression with and without a diagram * Solve problems involving bearings with and without a diagram | | **Algebraic Techniques and Indices** | | | * Substitute into algebraic expressions * Apply the index laws for multiplying and dividing * Apply the index laws for the zero index and indices with brackets |  | | |

A summary guide is to be submitted with task. A4 hand written page back to back summary of topics to be assessed.