**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.

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