## YEAR 12 – MATHEMATICS (Week 9)

Subject	Mathematics (Pure Math &Stat)
Class/ Section	Year 12 – Batch 1, 2 and 3
Week	25 <sup>th</sup> October to 28 <sup>th</sup> October 2020
Work send to students by	Group email / Google classroom / Zoom
Total number of lessons per week	6
	PURE MATH- Ch 7(ALGEBRAIC METHODS)
	7.1 Algebraic fractions.
Units	7.2 Dividing polynomials.
	7.3The factor Theorem.
	STATISTICS – Ch 4 (Correlation)
Lessons 1 –Live Zoom lesson	PURE MATH- Ch 7(ALGEBRAIC METHODS)
	<ul><li>7.1 Algebraic fractions.</li><li>7.2 Dividing polynomials.</li></ul>
	<u>Learning objective</u> —To simplify algebraic fractions using division, To divide a polynomial by a linear expression. Students will be able to use long division to divide a polynomial by a linear expression.
	<u>Intended Learning Outcomes</u> - Students will be able to simplifying algebraic fraction, possible factorise the numerator and denominator and then cancel common factors.
Tasks	To complete the questions assigned from the Textbook (pdf) in their notebook. Students will be put in break out rooms during Zoom lesson to encourage collaborative learning.
Resources	1. Power point presentation
	2. Pure Mathematics Year 1 / AS
	3. <a href="https://www.physicsandmathstutor.com/">https://www.physicsandmathstutor.com/</a>
	4. <a href="https://www.drfrostmaths.com/">https://www.drfrostmaths.com/</a>
	5. <a href="https://www.examsolutions.net/">https://www.examsolutions.net/</a>

Lesson 2 - Live Zoom lesson	. PURE MATH- Ch 7(ALGEBRAIC METHODS)
	7.3The factor Theorem.
	<u>Learning objective</u> - Use the factor theorem to factorise a cubic expression.
	<u>Intended Learning Outcomes</u> –
	-Students will be able to use factor theorem to find simple linear factors of a polynomial.
Tasks	To complete the questions assigned from the Textbook (pdf) in their notebook. Students will be put in break out rooms during Zoom lesson to encourage collaborative learning.
Resources	1. Power point presentation
	2. Pure Mathematics Year 1 / AS
	3. <a href="https://www.physicsandmathstutor.com/">https://www.physicsandmathstutor.com/</a>
	4. <a href="https://www.drfrostmaths.com/">https://www.drfrostmaths.com/</a>
	5. <a href="https://www.examsolutions.net/">https://www.examsolutions.net/</a>
Lesson 3 –Google Class room  Tasks	Learning objective —To simplify algebraic fractions using division, To divide a polynomial by a linear expression. Students will be able to use long division to divide a polynomial by a linear expression.  Intended Learning Outcome:
	By the end of the lesson students will be able to do the problems from the mixed exercise of Chapter 7– Algebraic Methods (7.1-7.3), from pages 154 to 156.
	Work will be assigned in Google Classroom
Lessons 4 –Live Zoom lesson	4.1 – Correlation
	4.2 – Linear Regression
	<u>Learning Objective</u> : -To draw and interpret scatter diagrams for bivariate data. To interpret correlation and understand that it does not imply causation. To interpret the coefficients of a regression line equation for bivariate data and to understand when you can use a regression line to make predictions.
	<u>Intended Learning Outcomes</u>
	Students will be able to know that bivariate data is data which has pairs of values for two variables. Correlation describes the nature of the linear relationship between two variables. When two variables are

	correlated, you need to consider the context of the question and use your common sense to determine whether they have a causal relationship. Students will be able to draw line of best fit when a scatter graph shows correlation. One type of line of best fit that is useful in statistics is a least squares regression line. The regression line of y on x is written in the form y = a + bx. The coefficient b tells you the change in y for each unit change in x. If the data is positively correlated, b will be positive. If the data is negatively correlated, b will be negative. You should only use the regression line to make predictions for values of the dependent variable that are within the range of the given data.
Tasks	To complete the questions assigned from the Textbook (pdf) in their notebook. Students will be put in break out rooms during Zoom esson to encourage collaborative learning.
Resource	<ol> <li>Power point presentation</li> <li>Statistics and Mechanics Year 1 / AS</li> <li><a href="https://www.physicsandmathstutor.com/">https://www.physicsandmathstutor.com/</a></li> <li><a href="https://www.drfrostmaths.com/">https://www.drfrostmaths.com/</a></li> <li><a href="https://www.examsolutions.net/a-level-maths/edexcel/edexcel-a-level-maths-past-papers/">https://www.examsolutions.net/a-level-maths-past-papers/</a></li> </ol>
Lessons 5&6 - Live Zoom lesson	Assessment in statistics chapters 1 and 2
	30 marks and 50 minutes duration
Task	Assessment in statistics
	Assessment paper will be uploaded in Google classroom.
	Students have to present in the zoom and answer the assessment in GC