## YEAR 12 – MATHEMATICS (Week 30)

Subject	Mathematics (Pure Math & Stats)
Class/ Section	Year 12 – Batch 1, 2 and 3
Week	21 <sup>st</sup> March – 25 <sup>th</sup> March 2021
Work send to students by	Group email / Google classroom / Zoom
Total number of lessons per week	6
Units	PURE MATH- Ch13(Integration) 13.7 Areas between curves and lines STATISTICS – Book 2 – Ch 3 (The Normal Distribution)
Lessons 1 &2 –Live Zoom lesson	PURE MATH- Ch13(Integration)         13.7 Areas between curves and lines         Learning objective       : Find the area bounded by the curve and straight lines .
	Intended Learning Outcomes - Students will be able to use definite integration together with areas of trapeziums and triangles to find more complicated areas on graphs.
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	<ol> <li>Power point presentation</li> <li>Pure Mathematics Year 1 / AS</li> <li><u>https://www.physicsandmathstutor.com/</u></li> <li><u>https://www.drfrostmaths.com/</u></li> <li><u>https://www.examsolutions.net/</u></li> </ol>
Lessons 3 and 4 - Live Zoom lesson	Book 2 Chapter 3:
	<ul> <li>5.1 – The normal distribution</li> <li><u>Learning objective</u> – To understand the normal distribution and the characteristics of a normal distribution curve.</li> <li><u>Intended Learning Outcomes</u></li> </ul>
	Students will be able to understand that a continuous random variable can take any one of infinitely many values. The probability that a continuous random variable takes any one specific value is 0, but we can write the probability that it takes within a given range. The area under a continuous probability distribution is equal to 1. The normal distribution has parameters $\mu$ the population mean and $\sigma^2$ , the population variance, is symmetrical (mean = median = mode), has a bell-shaped curve with asymptotes at each end and has

	a total area under the curve equal to 1.
Tasks Resources	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. 1. Power point presentation 2. Statistics and Mechanics Year 2 3. <u>https://www.physicsandmathstutor.com/</u> 4. <u>https://www.drfrostmaths.com/</u> 5. <u>https://www.examsolutions.net/a- levelmaths/edexcel/edexcel-a-level-maths-past-papers/</u>
Lesson 5 –Live Zoom lesson	Book 2 Chapter 3: 3.2 – Finding probabilities for Normal Distribution <u>Learning objective</u> – To find the percentage points on a standard normal curve.
	Intended Learning Outcomes
	Students will be able to understand how to use calculators to find the probabilities for a normal distribution using the normal cumulative distribution function.
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.
Resource	<ol> <li>Power point presentation</li> <li>Statistics and Mechanics Year 2</li> <li><u>https://www.physicsandmathstutor.com/</u></li> <li><u>https://www.drfrostmaths.com/</u></li> <li><u>https://www.examsolutions.net/a-</u>levelmaths/edexcel/edexcel-a-level-maths-past-papers/</li> </ol>
Lessons 6 –Live Zoom lesson	Assessment in Pure Math for 40 marks.
Tasks	Portion: Book 1 – Chapter 11 – Vectors – Chapter 12– Differentiation
Resource	Questions are assigned in Google classroom and students are monitored in Zoom.