## YEAR 13 – MATHEMATICS (Week 25)

Subject	Mathematics
Class/ Section	Year 13 – Batch A, B and C
Week	14 <sup>th</sup> February to 18 <sup>th</sup> February 2021
Work send to students by	Group email / Google classroom / Zoom
Total number of lessons per week	3
Units	Pure Mathematics – Year 2 Chapter 11 – Integration
Lesson 1 – Live Zoom lesson	11.7 – Partial fractions
	<u>Learning objective</u> – To integrate functions using partial fractions.
	Intended Learning Outcomes
	Students will be able to understand that Partial fractions can be used to integrate algebraic fractions. Using partial fractions enables an expression that looks hard to integrate to be transformed into two or more expressions that are easier to integrate.
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 2</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 2 –Live Zoom lesson	11.8 –Finding areas
	<u>Learning objective</u> – To use integration to find the area under the curve.
	Intended Learning Outcomes
	Students will be able to use the integration techniques from this chapter to find areas under curves. The area bounded by two curves can be found using integration:
	Area of $R = \int_{a}^{b} (f(x) - g(x)) dx = \int_{a}^{b} (f(x) dx - \int_{a}^{b} (g(x) dx) dx) dx$
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 2</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>
Lesson 3-Live Zoom lesson	<b>11.9 – The</b> trapezium rule
	<u>Learning objective</u> – To use the trapezium rule to approximate the area under the curve.
	Intended Learning Outcomes
	Students will be able to understand that if we cannot integrate a function algebraically, you can use a numerical method to approximate the area beneath a curve. To approximate the area given by
	$\int_{a}^{b} y  dx$ , we can divide the area up into n equal strips. Each strip will be of width h, where h = (b - a) / n.
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</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>