

YEAR 13 – MATHEMATICS (Week 7)

Subject	Mathematics
Class/ Section	Year 13 – Batch A, B and C
Week	11th October to 15th October 2020
Work send to students by	Group email / Google classroom / Zoom
Total number of lessons per week	3
Units	Pure Mathematics – Year 2 Chapter 5 - Radians
Lessons 1 –Live Zoom lesson	5.1 – Radian Measure 5.2 – Arc Length <u>Learning objective</u> – To convert between degree and radians and apply this to trigonometric graphs and their transformations. To know exact values of angles measured in radians. To find an arc length using radians. <u>Intended Learning Outcomes</u> --Students will be able to understand that they can measure angles in units called radians. 1 radian is the angle subtended at the centre of a circle by an arc whose length is equal to the radius of the circle. Students understand that the circumference of a circle of radius r is an arc of length $2\pi r$, so it subtends an angle of 2π radians at the centre of the circle. -- Students were made to understand that using radians greatly simplifies the formula for arc length. To find the arc length l of a sector of a circle use the formula $l = r\theta$, where r is the radius of the circle and θ is the angle, in radians, contained by the sector. 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.
Tasks	
Resources	<ol style="list-style-type: none">1 Power point presentation2 Pure Mathematics Year 23 https://www.physicsandmathstutor.com/

	<p>4 https://www.drfrostmaths.com/</p> <p>5 https://www.examsolutions.net/</p>
<p>Lessons 2 –Live Zoom lesson</p> <p>Tasks</p> <p>Resources</p>	<p>5.3 – Areas of sectors and segments 5.4 – Solving trigonometric equations</p> <p><u>Learning objective</u> – To find areas of sectors and segments using radians. To solve trigonometric equations in radians.</p> <p><u>Intended Learning Outcomes</u> --Students will be able to understand that using radians also greatly simplifies the formula for the area of a sector. To find the area A of a sector of a circle use the formula $A = 0.5r^2\theta$, where r is the radius of the circle and θ is the angle, in radians, contained by the sector. The area of a segment in a circle of radius r is $A = 0.5r^2(\theta - \sin \theta)$ -- Students will be able to understand how to solve trigonometric equations in radians, the same way they solved trigonometric equations in degrees. When the interval is given in radians, students make sure to give the answer in radians. Students are encouraged to always check that their final values are within the given range.</p> <p>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.</p> <ol style="list-style-type: none"> 1. Power point presentation 2. Pure Mathematics Year 2 3. https://www.physicsandmathstutor.com/ 4. https://www.drfrostmaths.com/ 5. https://www.examsolutions.net/
<p>Lesson 3–Live Zoom lesson</p> <p>Tasks</p>	<p>Assessment in Pure Math – Year 2</p> <p>Chapter 1(1.1 only) & Chapter 2 (Full)</p> <p>20 marks and 30 minutes duration</p> <p>Assessment paper will be uploaded in Google classroom.</p> <p>Students have to be present in the zoom and answer the assessment in GC.</p>