

YEAR 13 – MATHEMATICS (Week 11)

Subject	Mathematics
Class/ Section	Year 13 – Batch A, B and C
Week	8th November to 12th November 2020
Work send to students by	Group email / Google classroom / Zoom
Total number of lessons per week	3
Units	Pure Mathematics – Year 2 Chapter 7 – Trigonometry and Modelling Chapter 8 – Parametric Equations
Lesson 1 – Live Zoom lesson	7. Trigonometry and Modelling 7.6 – Proving trigonometric identities 7.7 – Modelling with trigonometric functions <u>Learning objective</u> – To prove trigonometric identities using a variety of identities. To use trigonometric functions to model real life situations. <u>Intended Learning Outcomes</u> --Students will be able to use trigonometric identities to prove other identities. -- Students will be able to use trigonometric functions to model real life situations. In trigonometrical modelling questions you will often have to write the model using $R(\sin x \pm \alpha)$ or $R(\cos x \pm \alpha)$ to find maximum or minimum values. 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/4. https://www.drfrostmaths.com/5. https://www.examsolutions.net/

<p>Lessons 2 –Live Zoom lesson</p> <p>Tasks</p> <p>Resources</p>	<p>8.1 – Parametric equations.</p> <p><u>Learning objective</u> – To convert parametric equations into Cartesian form by substitution.</p> <p><u>Intended Learning Outcomes</u> --Students will be able to understand that a curve can be defined using parametric equations $x = p(t)$ and $y = q(t)$. Each value of the parameter, t, defines a point on the curve with coordinates $(p(t), q(t))$. You can convert between parametric equations and Cartesian equations by using substitution to eliminate the parameter.</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>Resources</p>	<p>8.2 – Using trigonometric identities 8.3 – Curve Sketching</p> <p><u>Learning objective</u> – To convert parametric equations into Cartesian form using trigonometric identities. To understand and use parametric equations of curves and sketch parametric curves.</p> <p><u>Intended Learning Outcomes</u> --Students will be able to use trigonometric identities to convert trigonometric parametric equations into Cartesian form. In this chapter you will always consider angles measured in radians. --Students will be able to understand that most parametric curves do not result in curves you will recognise and can sketch easily. You can plot any parametric curve by substituting values of the parameter into each equation.</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/