

YEAR 12 – MATHEMATICS (Week 7)

Subject	Mathematics (Pure Math & Stat)
Class/ Section	Year 12 – Batch 1, 2 and 3
Week	11 th October to 15 th October 2020
Work send to students by	Group email / Google classroom / Zoom
Total number of lessons per week	6
Units	<p>PURE MATH- Ch 5 (Straight line graphs)</p> <p style="text-align: center;">5.4 Length and area 5.5 Modelling with straight lines</p> <p>STATISTICS – 2. Measures of location and spread 3. Representations of data</p>
<p>Lessons 1 & 2 –Live Zoom lesson</p> <p>Tasks</p> <p>Resources</p>	<p>Ch 5 (Straight line graphs)</p> <p>5.4 Length and area 5.5 Modelling with straight lines</p> <p><u>Learning objective</u> – To solve length and area problems on coordinate grids. To use straight line graphs to construct mathematical models</p> <p><u>Intended Learning Outcomes</u> - Students will be able to find equation of parallel and perpendicular line for the given line</p> <p>-Students will be able to use straight line graphs to construct mathematical models 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 1 / AS 3. https://www.physicsandmathstutor.com/ 4. https://www.drfrostmaths.com/ 5. https://www.examsolutions.net/

<p>Lesson 3 –Google Class room</p> <p>Tasks</p>	<p>To do problems involving straight line graphs</p> <p>Intended Learning Outcome:</p> <p>By the end of the lesson students will be able to do the problems from the mixed exercise of Chapter5– Straight line graphs , from pages 108-110</p> <p>Work will be assigned in Google Classroom.</p>
<p>Lessons 4 –Live Zoom lesson</p> <p>Tasks</p> <p>Resource</p>	<p>2.5 – Understanding and use coding</p> <p><u>Learning objective</u> – To understand and use coding to calculate mean variance and standard deviation for the given data.</p> <p><u>Intended Learning Outcomes</u></p> <p>To be able to decide what code is to be used to make data simpler. To know different ways of finding a suitable code for the given data. To know the use of coding the data and hence find few examples from real life where coding is used. To find out the reason that why we do not use addition or subtraction while decoding to get standard deviation for given data.</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. Statistics and Mechanics Year 1 / AS 3. https://www.physicsandmathstutor.com/ 4. https://www.drfrostmaths.com/ 5. 6. maths/edexcel/edexcel-a-level-maths-past-papers/" 7. https://www.examsolutions.net/a-level
<p>Lessons 5 –Live Zoom lesson</p>	<p>3.1 – Outliers</p> <p>3.2 – Box Plots</p> <p><u>Learning Objective: -</u> To identify outliers in data sets. To draw and interpret box plots.</p> <p><u>Intended Learning Outcomes</u></p> <p>Students will be able to understand that an outlier is an extreme value that lies outside the overall pattern of the data.</p> <p>A Common definition of an outlier is any value that is:</p> <ul style="list-style-type: none"> • <i>Either greater than $Q_3 + k(Q_3 - Q_1)$</i> • <i>Or less than $Q_1 - k(Q_3 - Q_1)$</i> <p>There are occasions when an outlier should be removed from the data since it is clearly an error and it would be misleading to keep it in.</p>

<p>Tasks</p> <p>Resource</p>	<p>These data values are known as anomalies.</p> <p>Students will be able to draw a box plot to represent important features of the data. It shows the quartiles, maximum and minimum values and any outliers. While drawing two box plots, use the same scale so they can be compared. Need to remember to give each a title and label the axis.</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 Statistics and Mechanics Year 1 / AS 3 https://www.physicsandmathstutor.com/ 4 https://www.drfrostmaths.com/ 5 https://www.examsolutions.net/a-level-maths/edexcel/edexcel-a-level-maths-past-papers/
<p>Lesson 6–Live Zoom lesson</p> <p>Tasks</p>	<p>Assessment in Pure Math chapter 3 and 4.</p> <p>30 marks and 50 minutes duration</p> <p>Assessment paper will be uploaded in Google classroom.</p> <p>Students have to present in the zoom and answer the assessment in GC.</p>