YEAR 12 – MATHEMATICS (Week 6)

Subject	**Mathematics (Pure Math &Stat)**
Class/ Section	**Year 12 – Batch 1, 2 and 3**
Week	**4th October to 8th October 2020**
Work send to students by	**Group email / Google classroom / Zoom**
Total number of lessons per week	**6**
Units	**PURE MATH- Ch 5 (Straight line graphs)** **5.1 y=m x+ c** **5.2 Equations of straight lines** **5.3 parallel and perpendicular lines** **5.4 Length and area** **5.5 Modelling with straight lines** **STATISTICS – Ch2 (Measures of location and spread)**
Lessons 1 –Live Zoom lesson	**Ch 5 (Straight line graphs)** **5.1 y=m x+ c** **5.2 Equations of straight lines** **Learning objective** – To calculate the gradient of a line joining a pair of points, understand the link between the equation of a line, and its gradient and intercept. To find the equation of a line . **Intended Learning Outcomes** -Students will be able to gradient of a straight line. -Students can define a straight line by giving one point on the line and the gradient, two different points on the line.
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	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/
Lesson 2–Live Zoom lesson **Tasks** **Resources**	**Ch 5 (Straight line graphs)** **5.3 parallel and perpendicular lines** **5.4 Length and area** **Learning objective** – – To know and use for parallel and perpendicular gradients. To solve length and area problems on coordinate grids . **Intended Learning Outcomes** - Students will be able to find equation of parallel and perpendicular line for the given line. 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. Pure Mathematics Year 1 / AS 3. https://www.physicsandmathstutor.com/ 4. https://www.drfrostmaths.com/ 5. https://www.examsolutions.net/
Lessons 3 –Live Zoom lesson **Tasks** **Resources**	**Ch 5 (Straight line graphs)** **5.5 Modelling with straight lines** **Learning objective** – **To use straight line graphs to construct mathematical models** **Intended Learning Outcomes** --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. 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/

Lessons 4 –Live Zoom lesson **Tasks** **Resource**	**2.4 – Variance and Standard Deviation** **<u>Learning objective</u> – To calculate Variance and Standard deviation for the given data.** **<u>Intended Learning Outcomes</u>** --Students will be able to know the meaning of variance and standard deviation and how it is useful in finding measure of spread and to know why standard deviation is a better measure of spread. 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 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/
Lessons 5 –Live Zoom lesson **Tasks** **Resource**	**2.5 – Understanding and use coding** **<u>Learning objective</u>** – To understand and use coding to calculate mean variance and standard deviation for the given data. **<u>Intended Learning Outcomes</u>** 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. 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/

Lessons 6 **Google Classroom** **Task** **Resources**	**To do problems involving Measures of Location and spread.** **Intended Learning Outcome:** **By the end of the lesson students will be able to do the problems from the mixed exercise of Chapter 2 – Measures of Location and spread, from pages 36 to 38.** **Work will be assigned in Google Classroom.** **Text Book :** Statistics and Mechanics Year 1 / AS