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| **H Unit 12:**  **Vectors** | | **Year 11 Road Map** | | | | |
| In this unit you will learn about Geometry. The aims are as follows:  **LG1**: Knowledge  **LG2**: Application  **LG3**: Skills  Assessment Grades | | | | | | |
|  | **Learning Goals/Outcomes/Content** | | Video clips | R A G  G A R |  |  |
| 12 Vectors and geometric proof | | | | | | |
| 1 | Understand and use vector notation, including column notation, and understand and interpret vectors as displacement in the plane with an associated direction. | | 174 |  |  |  |
| 2 | Understand that 2**a** is parallel to **a** and twice its length, and that **a** is parallel to –**a** in the opposite direction. | | 174 |  |  |  |
| 3 | Represent vectors, combinations of vectors and scalar multiples in the plane pictorially. | | 174 |  |  |  |
| 4 | Calculate the sum of two vectors, the difference of two vectors and a scalar multiple of a vector using column vectors (including algebraic terms). | | 174 |  |  |  |
| 5 | Find the length of a vector using Pythagoras’ Theorem. | | 174 |  |  |  |
| 6 | Calculate the resultant of two vectors. | | 174 |  |  |  |
| 7 | Solve geometric problems in 2D where vectors are divided in a given ratio. | | 219 |  |  |  |
| 8 | Produce geometrical proofs to prove points are collinear and vectors/lines are parallel. | | 219 |  |  |  |
| Student’s comments or questions | | | | | | |