|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **H Unit 11:**  **Advanced Algebra** | | **Year 11 Road Map** | | | | |
| In this unit you will learn about algebra. 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  G A R |  |  |
| 11  Changing the subject of formulae (more complex), algebraic fractions, solving equations arising from algebraic fractions, rationalising surds, proof | | | | | | |
| 1 | Rationalise the denominator involving surds; | | 207c |  |  |  |
| 2 | Simplify algebraic fractions; | | 210a |  |  |  |
| 3 | Multiply and divide algebraic fractions; | | 210a |  |  |  |
| 4 | Solve quadratic equations arising from algebraic fraction equations; | | 210b |  |  |  |
| 5 | Change the subject of a formula, including cases where the subject occurs on both sides of the formula, or where a power of the subject appears; | | 190 |  |  |  |
| 6 | Change the subject of a formula such as , where all variables are in the denominators; | | 190 |  |  |  |
| 7 | Solve ‘Show that’ and proof questions using consecutive integers (*n*, *n* + 1), squares *a*2, *b*2, even numbers 2*n*, odd numbers 2*n* +1; | | 193 |  |  |  |
| 8 | Use function notation; | |  |  |  |  |
| 9 | Find f(*x*) + g(*x*) and f(*x*) – g(*x*), 2f(*x*), f(3*x*) etc algebraically; | |  |  |  |  |
| 10 | Find the inverse of a linear function; | | 214a, 214b |  |  |  |
| 11 | Know that f –1(*x*) refers to the inverse function; | | 214a |  |  |  |
| 12 | For two functions f(*x*) and g(*x*), find gf(*x*). | | 215 |  |  |  |
| Student’s comments and questions | | | | | | |