<table>
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<th>Unit Name</th>
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<th>Duration (weeks)</th>
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| Topic 6 Algebra (b)                          | • Distributive Law – expansion of single bracketed expressions, binomial expressions (FOIL)  
   • Expansion using patterns – DOTS, PSI  
   • Factorising simple expressions using HCF  
   • Factorising quadratic expressions  
   • Factorising using special products – DOTS, completing the square.  
   • Simplifying algebraic expressions  
   • Solving quadratic equations using Factorisation and the Null Factor Law; and using the Quadratic Formula | 6 weeks          | EXAMS  
   KAPS EXAM  
   70 mins unseen  
   MAPS EXAM  
   70 mins unseen | Wednesday 30 Aug  
   Thursday 31 Aug |
| Topic 5 Matrices                             | • Definition of a matrix  
   • Types of matrices  
   • Equality of matrices  
   • Transpose of a matrix  
   • Addition & Subtraction of matrices  
   • Multiplication by a scalar | 1.5 weeks        | ASSIGNMENT  
   EMT  
   3 weeks Individual work | Thursday 19 Oct  
   Due date Thursday 26 Oct |
| Topic 7 Graphing Functions and Relations     | • Plotting and Sketching Linear Functions  
   • Solving Linear equations simultaneously – graphically and algebraically  
   • Sketching  
     - Quadratic Functions  
     - Circles  
     - Exponential Functions | 4 weeks          | EXAMS  
   KAPS EXAM  
   70 mins unseen  
   MAPS EXAM  
   70 mins unseen | Thursday 16 Nov  
   Wednesday 22 Nov |
| Topic 8 Indices & Surds                      | • Index laws  
   - Basic  
   - Negative and rational powers  
   • Solving indicial equations  
   • Rational and irrational numbers  
   • Definition of a surd  
   • Multiplying & Dividing surds  
   • Adding & subtracting surds  
   • Rationalising the denominator  
     - Simple surds  
     - Conjugates | 5.5 weeks        | EXAMS  
   KAPS EXAM  
   70 mins unseen  
   MAPS EXAM  
   70 mins unseen | |
| Topic 9 Periodic Functions                   | • Features of periodic functions: amplitude, period, frequency  
   • Graphs of y=AsinBx + D, y=AcosBx+D and y=tanx | 1 week           |                  |                |

**Literacy Components**
- Speaking and Listening – using specialised language
- Reading & Viewing – interpreting word problems
- Writing & Designing – using specialised notation to communicate responses

**Numeracy Components**
- Number – basic operations, number systems
- Algebra – substituting into formula, solving for unknown values
- Measurement
- Space – angle measure
- Chance & Data – types of data, how to collect and analysing for measures of central tendency and spread

**ICT/Technology Components**
- Select and use ICTs in the processes of inquiry and research
- Select and use ICTs to create a range of responses to suit the purpose and audience -  
- Select and use ICTs to collaborate and enhance communication for an identified purpose and audience
- Develop and apply ethical, safe and responsible practices when working with ICTs
- Use a range of advanced ICT functions and applications – use of graphing calculator and/or graphing programs