

Red	Amber	Green
-----	-------	-------

## Chapter 1: Complex Numbers: Chapter 1: Complex Numbers

FM1 I understand and can use the definitions of imaginary and complex numbers			
FM2 I can add and subtract complex numbers			
FM3 I can multiply complex numbers			
FM4 I understand the definition of a complex conjugate			
FM5 I can divide complex numbers			
FM6 I can solve quadratic equations that have complex roots			
FM7 I can solve cubic or quartic equations that have complex roots			

## Chapter 2: Argand diagrams: Chapter 2: Argand diagrams

FM8 I can show complex numbers on an Argand diagram			
FM9 I can find the modulus and argument of a complex number			
FM10 I can write a complex number in modulus-argument form			
FM11 I can represent loci on an Argand diagram			
FM12 I can represent regions on an Argand diagram			

## Chapter 3: Series: Chapter 3: Series

FM13 I can use standard results for $\sum 1$ and $\sum r$			
FM14 I can use standard results for $\sum r^2$ and $\sum r^3$			
FM15 I can evaluate and simplify series of the form $\sum f(r)$ where $f(r)$ is linear, quadratic or cubic			

## Chapter 4: Roots of polynomials: Chapter 4: Roots of polynomials

FM16 I can derive and use the relationships between the roots of a quadratic equation			
FM17 I can derive and use the relationships between the roots of a cubic equation			
FM18 I can derive and use the relationships between the roots of a quartic equation			
FM19 I can evaluate expressions relating to the roots of polynomials			
FM20 I can find the equation of a polynomial whose roots are a linear transformation of the roots of a given polynomial			

**Chapter 5: Volumes of revolution: Chapter 5: Volumes of revolution**

FM21 I can find the volume of revolution when a curve is rotated around the x-axis			
FM22 I can find the volume of revolution when a curve is rotated around the y-axis			
FM23 I can find more complicated volumes of revolution			
FM24 I can model real-life objects using volumes of revolution			

**Chapter 6: Matrices: Chapter 6: Matrices**

FM25 I can understand the concept of a matrix			
FM26 I can define the zero and identity matrices			
FM27 I can add and subtract matrices			
FM28 I can multiply a matrix by a scalar			
FM29 I can multiply matrices			
FM30 I can calculate the determinant of a matrix			
FM31 I can find the inverse of a matrix			
FM32 I can use matrices to solve systems of equations			
FM33 I can interpret simultaneous equations geometrically			

**Chapter 7: Linear transformations: Chapter 7: Linear transformations**

FM34 I can understand the properties of linear transformations and represent them using matrices			
FM35 I can perform reflections and rotations using matrices			
FM36 I can carry out enlargements and stretches using matrices			
FM37 I can find the coordinates of invariant points and the equations of invariant lines			
FM38 I can carry out successive transformations using matrix products			
FM39 I can understand linear transformations in three dimensions			
FM40 I can use inverse matrices to reverse linear transformations			

**Chapter 8: Proof by induction: Chapter 8: Proof by induction**

FM41 I can understand the principle of proof by mathematical induction and prove results about sums of series			
FM42 I can prove results about divisibility using induction			
FM43 I can prove results about matrices using induction			

## Chapter 9: Vectors: Chapter 9: Vectors

FM44 I can understand and use the vector and Cartesian forms of the equation of a straight line in three dimensions			
FM45 I can understand and use the vector and Cartesian forms of the equation of a plane			
FM46 I can calculate the scalar product for two 3D vectors			
FM47 I can calculate the angle between two vectors, two lines, a line and a plane, or two planes			
FM48 I can understand and use the scalar product form of the equation of a plane			
FM49 I can determine whether two lines meet and determine the point of intersection			
FM50 I can calculate the perpendicular distance between: two lines, a point and a line, or a point and a plane			

Date:

Student Reflection:

Teacher Comment: