

Section A - Number	
Statements	*TMSN*
I can apply the product rule for counting	
I can perform the basic operations with surds	
I can rationalise the denominator of a surd, including those with an expression	

Section B – Equations and Functions	
Statements	*TMSN*
I can perform the Binomial expansion of a bracket, using Pascal's triangle or with nCr	
I can expand brackets with multiple terms	
I can factorise quadratics, including those with the coefficient of $x^2 \neq 1$	
I know the definition of a composite and an inverse function, and I can perform calculations with them	
I know the difference between the domain and range of a function	
I know, and can apply, the factor theorem to a polynomial	
I can draw and interpret a piecewise function	
I can solve a set of three simultaneous equations	

Section C - Graphing	
Statements	*TMSN*
I can complete the square, including quadratics where the coefficient of $x^2 \neq 1$	
I can find the roots and the turning point of a quadratic from the complete the square form	
I can use the complete the square form of a quadratic to sketch the quadratic	
I can sketch other polynomials such as cubics	
I know the equation of a circle	
I can find the equation of a tangent to a circle	
I can solve a linear inequality	
I can solve a quadratic inequality	

Section D – Sequences	
Statements	*TMSN*
I can find the n^{th} term of a linear sequence	
I can find the n^{th} term of a quadratic sequence	
I can deduce the limiting value of sequence	

Section E - Differentiation	
Statements	*TMSN*
I know the difference between a tangent and a chord	
I can differentiate a function	
I can find equations of a tangent or normal to a curve	
I can determine if a function is increasing or decreasing in a given range	
I can find the second derivative of a function	
I know the definition of a stationary/turning point, and I can find stationary points on a curve	
I can classify the nature of stationary points	

Section F – Geometry	
Statements	*TMSN*
I know all the circle theorems	
I can use circle theorems in a geometric proof	
I know the graphs for $\sin\theta$, $\cos\theta$, and $\tan\theta$	
I can solve trigonometric equations	
I know that $\tan\theta \equiv \frac{\sin\theta}{\cos\theta}$ and $\sin^2\theta + \cos^2\theta = 1$	
I can use identities in equations or proofs	
I can apply the sine and cosine rule	
I can solve 3D problems using trigonometry	

Section G – Matrices	
Statements	*TMSN*
I can add/subtract matrices	
I know the limitations when multiplying matrices	
I can multiply matrices	
I know the identity matrix	
I know the matrices for rotation, reflection, and enlargement	
I can perform a single transformation of a matrix	
I can perform combined transformations of a matrix	