Topics	What students need to learn:		
	Content		Guidance
5 **Trigonometry**	5.1	Understand and use the definitions of sine, cosine and tangent for all arguments; the sine and cosine rules; the area of a triangle in the form $\frac{1}{2}ab\sin C$	Use of x and y coordinates of points on the unit circle to give cosine and sine respectively, including the ambiguous case of the sine rule.
	5.2	Understand and use the sine, cosine and tangent functions; their graphs, symmetries and periodicity.	Knowledge of graphs of curves with equations such as $y = \sin x$, $y = \cos(x + 30°)$, $y = \tan 2x$ is expected.
	5.3	Understand and use $\tan\theta = \frac{\sin\theta}{\cos\theta}$ Understand and use $\sin^2\theta + \cos^2\theta = 1$	These identities may be used to solve trigonometric equations or to prove further identities.
	5.4	Solve simple trigonometric equations in a given interval, including quadratic equations in sin, cos and tan and equations involving multiples of the unknown angle.	Students should be able to solve equations such as $\sin(x + 70°) = 0.5$ for $0 < x < 360°$, $3 + 5\cos 2x = 1$ for $-180° < x < 180°$ $6\cos^2 x° + \sin x° - 5 = 0,\ 0 \leqslant x < 360°$ giving their answers in degrees.