Basic

$\sin\theta$	$\frac{opposite}{hypotenuse}$
$\cos\theta$	$\frac{adjacent}{hypotenuse}$
$\tan\theta$	$\frac{opposite}{adjacent}$

Sine Rule

	$\frac{a}{\sin A} = \frac{b}{\sin B} = \frac{c}{\sin C}$

Cosine Rule

	$a^2 = b^2 + c^2 - 2bc\cos A$ $b^2 = a^2 + c^2 - 2ac\cos B$ $c^2 = a^2 + b^2 - 2ab\cos C$

Area of triangle

	$\frac{1}{2}bc\sin A = \frac{1}{2}ac\sin B = \frac{1}{2}ab\sin C$

Addition Formulae

$\sin(A+B)$	$\sin A\, cosB + \sin B\cos A$
$\sin(A-B)$	$\sin A\, cosB - \sin B\cos A$
$\cos(A+B)$	$\cos A\, cosB - \sin A\sin B$
$\cos(A-B)$	$\cos A\, cosB + \sin A\sin B$
$\tan(A+B)$	$\frac{\tan A + \tan B}{1 - \tan A\tan B}$
$\tan(A-B)$	$\frac{\tan A - \tan B}{1 + \tan A\tan B}$

Double Angle Formulae

$\sin 2A$	$\sin(A+A) = \sin A\,cosA + \sin A \cos A = 2\sin A \cos A$
$\cos 2A$	$\cos(A+A) = \cos A\,cosA - \sin A \sin A = \cos^2 A - \sin^2 A$
$\cos 2A$	$2\cos^2 A - 1$
$\cos 2A$	$1 - 2\sin^2 A$
tan2A	$\dfrac{\tan A + \tan A}{1 - \tan A \tan A} = \dfrac{2\tan A}{1 - \tan^2 A}$

R Formulae

	$where\ R = \sqrt{a^2+b^2}$, $\alpha = \tan^{-1}\left(\frac{b}{a}\right)$, $0° < \alpha < 90°$
a $\sin\theta$ + b $\cos\theta$	$R\sin(\theta+\alpha)$
a $\sin\theta$ − b $\cos\theta$	$R\sin(\theta-\alpha)$
a $\cos\theta$ + b $\sin\theta$	$R\cos(\theta-\alpha)$
a $\cos\theta$ − b $\sin\theta$	$R\cos(\theta+\alpha)$

Factor Formulae

$\sin P + \sin Q$	$2\sin\frac{P+Q}{2}\cos\frac{P-Q}{2}$
$\sin P - \sin Q$	$2\cos\frac{P+Q}{2}\sin\frac{P-Q}{2}$
$\cos P + \cos Q$	$2\cos\frac{P+Q}{2}\cos\frac{P-Q}{2}$
$\cos P - \cos Q$	$-2\sin\frac{P+Q}{2}\sin\frac{P-Q}{2}$