Trigonometry

$\sin\theta = y/r$, O/H

$\cos\theta = x/r$, A/H

$\tan\theta = y/x$, O/A ; $x \neq 0$

$\csc\theta$	$\arcsin\theta = r/y$, H/O ; $y \neq 0$
$\sec\theta$	$\arccos\theta = r/x$, H/A ; $x \neq 0$
$\cot\theta$	$\operatorname{arctan}\theta = x/y$, A/O ; $y \neq 0$

Double Angle Identities

$\sin 2x = 2\sin x \cos x$

$\cos 2x = \cos^2 x - \sin^2 x$

$= 2\cos^2 x - 1$

$= 1 - 2\sin^2 x$

$\tan 2x = 2\tan x / (1 - \tan^2 x)$