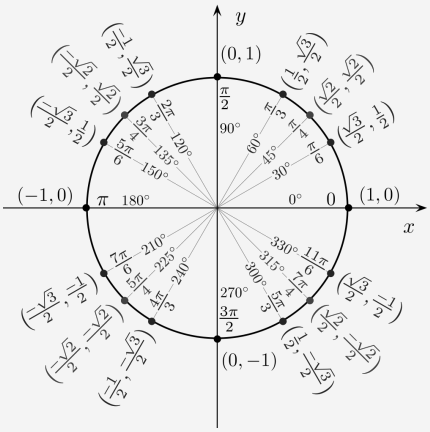
Double Angle Identities

$\sin(2a)=2\sin(a)\cos(a)$
$\cos(2a)=\cos^2(a)-\sin^2(a)$
$\cos(2a)=2\cos^2(a)-1$
$\cos(2a)=1-\sin^2(a)$
$\tan(2a)=2\tan(a)/1-\tan^2(a)$

Angle Sum/Difference Identities

$\sin(A-B)=\sin A\cos B-\cos A\sin B$
$\cos(A-B)=\cos A\cos B+\sin A\sin B$
$\tan(A-B)=\tan A-\tan B/1+\tan A\tan B$
$\sin(A+B)=\sin A\cos B+\cos A\sin B$
$\cos(A+B)=\cos A\cos B-\sin A\sin B$
$\tan(A+B)=\tan A+\tan B/1-\tan A\tan B$

Unit Circle



Reciprocal Identities and Cotangent/Tangent

$\csc x=1/\sin x$
$\sec x=1/\cos x$
$\cot x=1/\tan x$
$\tan x=\sin x/\cos x$
$\cot x=\cos x/\sin x$

Pythagorean Idenitities

$\cos^2x+\sin^2x=1$
$1+\tan^2x=\sec^2x$
$1+\cot^2x=\csc^2x$

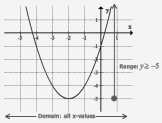
Common Functions

f(x)=mx+b is a line moving up
$f(x)=x^2$ is a parabola
$f(x)=x^3$ is a half parabola with a reflection under the x axis
f(x)= sqrtx is a half sideways parabola on the positive side of the first quadrant

Half Angle Identities

$\sin A/2=$ +- sqrt $1-\cos A/2$
$\cos A/2=$ +- sqrt $1+\cos A/2$
$\tan A/2=$ +- sqrt $1-\cos A/1+\cos A$

Domain and Range



By **nosolution4**

cheatography.com/nosolution4/

Published 3rd June, 2015.
Last updated 9th May, 2016.

Sponsored by **CrosswordCheats.com**
Learn to solve cryptic crosswords!
http://crosswordcheats.com