Main Formula In Trigonometry

$\sin^2 x+\cos^2 x=1$
$\tan x=\frac{(\sin x)}{(\cos x)}$
$\cot x=\frac{1}{(\tan x)}=\frac{(\cos x)}{(\sin x)}$
$1+\tan^2 x=sec^2 x=\frac{1}{(\cos^2 x)}$
$\sin x=\sqrt{(1-\cos^2 x)}=\frac{(\tan x)}{(\sqrt{1}+\tan^2 x)}=\frac{1}{(\sqrt{1}+\cot^2 x)}$
$\cos x=\sqrt{(1-\sin^2 x)}=\frac{1}{((\sqrt{1}+\tan^2 x))}=\frac{(\cot x)}{(\sqrt{(1+\cot^2 x)})}$
$\sin(-x)=-\sin x$
$\cos(-x)=\cos x$
$\tan(-x)=-\tan x$
$\sin(x\pm y)=\sin x\cos y\pm\cos x\sin y$
$\cos(x\pm y)=\cos x\cos y\mp\sin x\sin y$
$\tan(x\pm y)=\frac{[\tan x\pm\tan y]}{[1\mp\tan x\tan y]}$
$\cot(x\pm y)=\frac{[\cot x\cot y\mp 1]}{[\cot x\pm\cot y]}$
$\sin x+\sin y=2\sin\frac{(x+y)}{2}\cos\frac{(x-y)}{2}$
$\log_a(xy)=\log_a x+\log_a y\,,\log(x/y)=\log_a x-\log_a y$ $\log_c^a=\log_b^a\times\log_c^b$