

$x$	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$
$\sin x$	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1
$\cos x$	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0
$\tan x$	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	—
$\cotan x$	—	$\sqrt{3}$	1	$\frac{\sqrt{3}}{3}$	0

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$\sin^2 x + \cos^2 x = 1$
$\sin 2x = 2 \sin x \cos x$
$\cos 2x = \cos^2 x - \sin^2 x$
$\cos(x \mp y) = \cos x \cos y \pm \sin x \sin y$
$\sin(x \mp y) = \sin x \cos y \mp \sin y \cos x$
$\tan 2x = \frac{2 \tan x}{1 - \tan^2 x}$
$\sin x + \sin y = 2 \sin \frac{x+y}{2} \cos \frac{x-y}{2}$
$\sin x - \sin y = 2 \cos \frac{x+y}{2} \sin \frac{x-y}{2}$
$\cos x + \cos y = 2 \cos \frac{x+y}{2} \cos \frac{x-y}{2}$
$\cos x - \cos y = -2 \sin \frac{x+y}{2} \sin \frac{x-y}{2}$
$ \sin \frac{x}{2}  = \sqrt{\frac{1 - \cos x}{2}}$
$ \cos \frac{x}{2}  = \sqrt{\frac{1 + \cos x}{2}}$
$\cos x = \frac{1-t^2}{1+t^2} \quad \sin x = \frac{2t}{1+t^2} \quad t = \tan \frac{x}{2}$
$A \sin x + B \cos x = \sqrt{A^2 + B^2} \sin(x + \alpha)$
$\frac{a}{\sin \alpha} = \frac{b}{\sin \beta} = \frac{c}{\sin \gamma}$
$a^2 = b^2 + c^2 - 2bc \cos \alpha$
$\frac{b+c}{a} = \frac{\cos \frac{\beta-\gamma}{2}}{\sin \frac{\alpha}{2}}$
$\frac{\sin \frac{\beta-\gamma}{2}}{\cos \frac{\alpha}{2}} = \frac{b-c}{a}$
$\frac{b-c}{b+c} = \frac{\tan \frac{\beta-\gamma}{2}}{\tan \frac{\beta+\gamma}{2}}$

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