

Precalculus BC
Trigonometric Identities Part I

Cut out the squares and arrange them into a 3x3 square in which the expressions or values along each edge are equivalent. (For example, $(x + 2)^2 = 16$ and $x^2 + 4x - 12 = 0$ could match.)

$\cos 14^\circ$	$\cos 34^\circ$	$\cos 14^\circ$
$\frac{\sin 50^\circ}{1 + \cos 50^\circ}$	$\sqrt{2} \cos 3^\circ$	$\cos^2 87^\circ - \tan^2 87^\circ$
0	$1 - \sin^2 95^\circ$	$\sec^2 224^\circ - 1$
$\sin 9^\circ$	$\sin 40^\circ$	$\sin 7^\circ$
$\sin 75^\circ$	$\frac{1}{2}$	$\frac{\sqrt{1 - \cos 18^\circ}}{2}$
$\frac{3}{4}$	$\cos^2 40^\circ - \sin^2 40^\circ$	$\sin 12^\circ \cos 28^\circ + \cos 12^\circ \sin 28^\circ$
$\sin 72^\circ$	$\sin 160^\circ \cos 70^\circ + \cos 20^\circ \sin 70^\circ$	$\sin 42^\circ + \sin 48^\circ$
$2 \cos^2 17^\circ - 1$	$\cos^2 62^\circ + 1$	$\tan 81^\circ$
$\sin 12^\circ \sin 18^\circ$	$\frac{\sqrt{1 + \cos 18^\circ}}{2}$	$\tan 25^\circ$
$2 \cos^2 17^\circ - 1$	1	$\cos 22^\circ$
$2 \sin 36^\circ \cos 36^\circ$	$\cos 80^\circ$	$\sin 112^\circ$