

Trigonometry: Inverse Cut-Ups

Cut the following into sixteen squares. Match equivalent expressions to create one large square.

$\arccos\left(\frac{1}{\sqrt{2}}\right)$ $\arcsin(3)$ $\pi \mid 3$	$\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$ 0 $\frac{\sqrt{3}}{2}$	$\arctan\left(\sqrt{3}\right)$ $\arcsin\left(\frac{\sqrt{3}}{2}\right)$ $\frac{9}{5}\pi$ $\arctan\left(\frac{-\sqrt{3}}{3}\right)$	$\cos\left(\frac{9}{10}\right)$ $\cos^{-1}\left(\frac{2}{\sqrt{3}}\right)$
$\arctan\left(-\sqrt{3}\right)$ $\sin^{-1}\left(\frac{1}{\sqrt{2}}\right)$ π	$\cos^{-1}\left(\frac{\sqrt{2}}{2}\right)$ $-\frac{\pi}{6}$ $\frac{3\pi}{4}$	$\arccos(1)$ $\sin^{-1}(0)$ $\pi \mid 4$	$\arccos(2)$ $\arccos\left(\frac{-1}{2}\right)$ $\pi \mid 4$
$\arctan(1)$ $\frac{\pi}{4} \mid \pi$ $\frac{3}{\pi}$	$\arccos(-1)$ $-\frac{\pi}{4}$ $\frac{6}{\pi}$	$\arcsin\left(\frac{2}{-\sqrt{3}}\right)$ $\pi \mid 6$ $\frac{4}{\pi}$	$\arccos\left(\frac{1}{2}\right)$ $\arctan(-1)$ $\frac{2\pi}{3}$
$\cos^{-1}(0)$ $\arccos\left(\frac{-\sqrt{3}}{2}\right)$ $D.N.E.$	$\arctan\left(\frac{1}{\sqrt{3}}\right)$ $D.N.E.$	$\tan^{-1}(0)$ $\frac{3}{\pi}$	$-\frac{\pi}{3}$ $\frac{-\pi}{3}$

Trigonometry: Inverse Cut-Ups Solution

$\arcsin\left(\frac{\sqrt{3}}{2}\right)$	$\arctan\left(\sqrt{3}\right)$	$D.N.E.$	$\arccos(2)$	$\pi - \frac{\pi}{4}$	$\arccos\left(\frac{1}{\sqrt{2}}\right)$	$\arcsin(3)$	$\pi - \frac{\pi}{3}$		
$\frac{6}{\pi}$	$\frac{-\pi}{4}$	$\arccos(-1)$	$\arctan(-1)$	$\arccos\left(\frac{1}{2}\right)$	$\tan^{-1}(0)$	$\cos^{-1}(0)$	$\arccos\left(\frac{-\sqrt{3}}{2}\right)$	$\frac{9}{5\pi}$	$\frac{3}{\pi}$
π	$\sin^{-1}\left(\frac{1}{\sqrt{2}}\right)$	$\arctan\left(-\sqrt{3}\right)$	$\frac{\pi}{4}$	$\arctan(1)$	0	$\sin^{-1}(0)$	$\arccos(1)$	$\frac{2}{\pi}$	$\frac{9}{\pi}$
$\frac{3}{\pi}$	$\frac{-\pi}{3}$	$\frac{3}{\pi}$	$\arcsin\left(\frac{2}{-\sqrt{3}}\right)$	$\frac{\pi}{4}$	$\pi - \frac{\pi}{6}$	$\cos^{-1}\left(\frac{\sqrt{3}}{2}\right)$	$\frac{\sqrt{3}}{2}$	0	$\cos^{-1}\left(\frac{9}{\pi}\right)$
$\frac{3\pi}{4}$	$\cos^{-1}\left(\frac{2}{\sqrt{3}}\right)$	$\frac{3\pi}{4}$	$\cos^{-1}\left(\frac{\sqrt{2}}{2}\right)$	$\frac{6}{\pi}$	$\frac{3}{\pi}$	$\arctan\left(\frac{-\sqrt{3}}{3}\right)$	$\frac{5\pi}{6}$	$\frac{3}{\pi}$	$\frac{6}{\pi}$