

MATH110 - College Trigonometry

Long Quiz 002

$\sec^2\theta + \tan^2\theta = 1$
=False

What is the range of $y = \cos x$?
= $\{y|y \in \mathbb{R}, -1 \leq y \leq 1\}$

If $\sec A < 0$, then $\sin A < 0$
=False

A cosine function has only one y-intercept
=True

What is the y-intercept of $y = \sin x$?
=0

$\sin(A)/2 = +\sqrt{(1+\cos A)}/2$
=False

$\tan A = 4/3, \tan B = 8/15$
= $84/13$

The function $y = \sin x$ is an odd function
=True

What is the value of $\csc^2 \theta - 3 - \cot^2 \theta$?
=-2

Which of the following is equal to $\sin^2 \theta$?
= $1/(\csc^2 \theta)$

The y-intercept of $y = \sin x$ is 1
=False

Which of the following expressions has a product of 1?
= $\csc \theta \sin \theta$

If $\sec A < 0$, then $\sin A < 0$
=False

If $\csc \theta = -(41)/9$ is in QIV, then what is $\cos \theta$?
= $40/41$

Which of the following is the reciprocal of $\sec \theta$?
= $\cos \theta$

Which of the following is a characteristic of $y = -5\sin x$?
=Its amplitude is 5

What is the period of the graph of $y = \cos 2x$?
= π

Find the exact value of $\tan\left(\frac{\pi}{12}\right) = \frac{\pi}{3} - \frac{\pi}{4}$
= $\frac{\sqrt{3}+1}{\sqrt{3}-1}$

$\sin(2\pi - y) = ?$
= $\sin 2\pi \cos y - \cos 2\pi \sin y$

What are the x-intercepts of $y = \cos x$?
= $(k\pi)/2$, where k is an odd integer

Given that $f(x) = \cos x$. What is $f\left(-\frac{\pi}{3}\right)$?
= $1/2$

The reciprocal of tangent is cotangent
=True

$\tan(x + y) = ?$
= $\frac{\tan(x) + \tan(y)}{1 - \tan(x)\tan(y)}$

If $\sin A < 0$ and $\cos A > 0$, then $\sin 2A < 0$
=True

Which of the following expressions is equivalent to $\cos(x + y)$?
= $\cos x \cos y - \sin x \sin y$

A sine function is a periodic function
=True

if $\sin\theta = -5/13$ and θ is in the fourth quadrant, then what is $\cos\theta$?
= $12/13$

Which of the following expressions is equivalent to $\cos 2B$?
= $\cos^2 B - \sin^2 B$

What is the product $(\sin\theta + \cos\theta)(\sin\theta - \cos\theta)$?
= $1 - \sin^2\theta - \cos^2\theta$

If $\sin A = 5/13$ and $\cos A > 0$, then what is $\sin(A/2)$?
= $\frac{\sqrt{26}}{26}$