

MATH110 - College Trigonometry

FINAL EXAM

If $\csc\theta = -(41)/(9)$ and θ is in the fourth quadrant, then what is $\tan \theta$?
=-9/40

$((1)/(\sec\theta))((1)/(\cot\theta))$
=sin θ

The cosecant of a point in the second quadrant is negative.
=True

Given that $f(x) = \sin x$. What is $f(-(\pi)/(4))$?
= $(-\sqrt{2})/(2)$

Which of the following angles has a terminal side at the fourth quadrant?
= $\{(\pi)/(3), (5\pi)/(3)\}$

What is the sign of the secant of point $L(-2, 7)$?
=negative

Which of the following angles is the supplement of $5\pi/6$?
= $(\pi)/(6)$

Point H has coordinates (m, k) . What is the value of $\sec H$?
= $(\sqrt{m^2+k^2})/(m)$

$\sin(\pi)/(6) - \cos(\pi)/(3) + \tan(\pi)/(4)$
=1

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

The tangent of an angle is zero whenever its cosine is zero
=True

$\csc^2\theta + \cot^2\theta = 1$
=False

Which of the following statements is NOT TRUE about an angle in the standard position?
=Its initial side is on the positive x-axis

If the secant of H is positive while its tangent is negative, then in what quadrant is H located?
=QI

What is $\cot(\pi/3)$
 $=\frac{1}{\sqrt{3}}$

$\tan(2A - A/2)$
 $=\frac{3}{2}\tan A$

If $\cos 8\pi + \cos 5\pi = \frac{1}{2}[\cos k + \cos m]$ then what is the value of $m - k$?
 $=-10\pi$ (not sure)

What is the value of $\sin(\pi/4) - \sin(\pi/6)$?
 $=\frac{\sqrt{6} - \sqrt{2}}{4}$

$\tan(5\pi/4) > \sin(5\pi/3)$
 $=\text{True}$

Which of the following expressions is NOT equal to $\cos x/2$?
 $=-\sqrt{(1+\cos x)/2}$

Which of the following radian measures is equal to 180° ?
 $=10\pi$

The sides of a triangle have measures 24, 48 and 36. What is the measure of the angle opposite the side with a measure of 36?
 $=46.57^\circ$ (not sure)

Simplify $(\csc \theta - \cot \theta)^2 - 2\cot^2 \theta$
 $=1 - 2\csc \theta \cot \theta$

Which of the following statements is TRUE about the graph of $y = -2\cos 2x$?
 $=\text{Its greatest value is } 2$

If $\cos A < 0$, then $\tan A < 0$?
 $=\text{True}$ (not sure)

If $\cos A = -\frac{8}{17}$ and $\sin A > 0$, then what is $\tan A$?
 $=-\frac{15}{8}$

If $\sin A < 0$ and $\cos A < 0$, then $\sin 2A > 0$?
 $=\text{True}$

Solve for x
 $=14.37$ (not sure)

In QII, three of the six trigonometric function values are positive.
 $=\text{False}$

If $\sin A = \frac{3}{5}$ and $\cos A = \frac{4}{5}$, then $\tan(A/2) = ?$
 $=\frac{1}{3}$

What is the domain of $y = \cos x$?

= $x|x \in \mathbb{R}$

How many solutions does the equation $(\tan \theta - 1)(\tan \theta + \sqrt{3}) = 0$ have if $\frac{\pi}{2} < \theta < \frac{3\pi}{2}$?

=3

A triangle with sides 11, 4 and 8 is an obtuse triangle.

=True

Using the right triangle below, what is $\sec^2 B - \cot A - \tan^2 B$?

= $-7/5$ (not sure)

Solve a right triangle that has an angle of 35° and hypotenuse of 12.

= legs measure 8.40 and 8.57 and the other angle measures 55° (not sure)

Which of the following expressions must have come from the application of the Law of Cosines to a triangle?

= $13^2 = 8^2 + 11^2 - 2(8)(11)\cos P$ (not sure)

In right triangle, $\csc L = ?$

= $\sqrt{74}/7$ (not sure)

Solve for x in the triangle below.

=3.45 (not sure)

The reciprocal of cosecant is sine

=True

Solve $2\sec x - 1 = 0$ (where $0 \leq x < 2\pi$)

= $\{\pi/4, 3\pi/4\}$ (not sure)

What is $\tan(\pi/3) + \sec(\pi/4)$?

= $\sqrt{3} + \sqrt{2}$

$\cos(\pi/3) - \cos(2\pi/3) = 0$

=False

Given $P(1, -2)$, determine $\csc P$.

= $2\sqrt{5}/5$

Which of the following expressions is equivalent to $\tan 2B$?

= $(2\tan B)/(1 - \tan^2 B)$

Which of the following will satisfy the equation $y = \sin^{-1}(\sqrt{3}/2)$?

= $2\pi/3$ (not sure)

Given the right triangle below, then which of the following statements is TRUE?

= $\sin x$ b/e(not sure)

Which of the following angles is not a quadrantal angle?

= $7\pi/2$ (not sure)

A point P on the unit circle has coordinates $(-7/25, 24/25)$. What is $\sec P$?

= $-7/24$ (not sure)

Which of the following statements is NOT TRUE?

= $\cot A = \text{adjacent leg} / \text{opposite leg}$

$(\cos x + 1)(2\cos x - \sqrt{3}) = 0$?

= $\{\pi/6\}$ 9(not sure)

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