

MATH-1330-004 Quiz Scores Fall 2009

Each quiz is worth 9 points.

Quiz 30 Dec 7

Find the exact value of :

1. $\sin \left[\text{Arc sin} \left(-\frac{\pi}{2} \right) \right]$ (4 pts.) 2. $\cos^{-1} \left(\cos \frac{5\pi}{4} \right)$ (5 pts.)

Scores: 4, 4, 4, 3, 3, 3, 3, 2, 2, 2, 2, 1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0

Quiz 29 Dec 4

Find the exact value of:

1. $\text{Arc cos} \frac{1}{2}$ 2. $\cos^{-1}(-1)$ 3. $\text{Arc cos} \left(-\frac{\sqrt{3}}{2} \right)$

Scores: 9, 9, 9, 9, 9, 6, 6, 6, 6, 6, 6, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 0, 0, 0, 0, 0, 0

Quiz 28 Dec 2

Find the exact value of :

1. $\sin^{-1} \frac{\sqrt{2}}{2}$ 2. $\text{Arc sin} 1$ 3. $\sin^{-1} \left(-\frac{1}{2} \right)$

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 6, 6, 6, 6, 6, 6, 6, 3, 0, 0, 0, 0

Quiz 27 Nov 30

Sketch two cycles of the graph of $y = -\sqrt{5} \tan(4\pi x)$. Label the numbers on the x - and y -axes as needed.

Scores: 9, 9, 9, 8, 8, 8, 8, 8, 8, 7, 7, 7, 7, 6, 6, 6, 6, 6, 6, 5, 4, 4, 3, 3, 2, 0, 0, 0, 0

Quiz 26 Nov 23

Sketch two cycles of the graph of $y = 6 \cot \left(\frac{x}{3} + \frac{\pi}{4} \right)$. Label the numbers on the x - and y -axes as needed.

Scores: 9, 9, 9, 8, 7, 7, 7, 6, 5, 5, 5, 4, 4, 3, 2, 1, 1, 1, 1, 1, 1, 1, 0, 0, 0, 0, 0, 0, 0

Quiz 25 Nov 20

Sketch two cycles of the graph of $y = 6 \csc \left(-\frac{5x}{7} \right)$. Label the numbers on the x - and y -axes as needed. Only label where each cycle begins and ends. Do not label the numbers in between.

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 8, 8, 8, 8, 7, 7, 7, 7, 7, 6, 6, 5, 5, 0, 0, 0, 0, 0, 0

Quiz 24 Nov 13

Sketch one cycle of the graph of $y = -\frac{3}{4} \cos \left(5x - \frac{2\pi}{3} \right)$. Label the numbers on the x - and y -axes.

Scores: 9, 9, 9, 9, 9, 9, 9, 8, 7, 7, 7, 5, 4, 4, 3, 3, 3, 3, 3, 2, 2, 1, 1, 0, 0, 0, 0, 0

Quiz 23 Nov 9

Sketch two cycles of the graph of $y = \sqrt{3} \sin 6x$. Label the numbers on the x - and y -axes.

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 8, 8, 8, 7, 7, 6, 5, 1, 1, 1, 1, 1, 1, 0, 0

Quiz 22 Nov 6

Approximate the following to four decimal places. (3 pts. each)

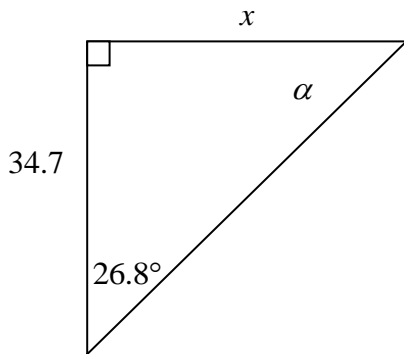
1. $\sin\left(-\frac{7\pi}{5}\right)$ 2. $\cos 2260^\circ$ 3. $\cot \frac{61\pi}{9}$

Scores: 9, 9, 9, 9, 9, 8, 8, 8, 8, 7, 7, 7, 7, 5, 5, 5, 5, 5, 5, 5, 5, 5, 4, 4, 3, 2, 2, 0

Quiz 21 Nov 4

The angle of depression from the top of a building to an object on the ground is 43° . If the object is 70 meters from the base of the building, then how far is the object from the top of the building? Round your answer to the nearest tenth.

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 8, 8, 8, 7, 7, 7, 7, 7, 7, 7, 6, 6, 6, 5, 4, 3, 3, 1, 0, 0, 0, 0, 0

Quiz 20 Nov 2

Find α . (3 pts.)

Find x . Round your answer to the nearest hundredth. (6 pts.)

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 8, 8, 8, 8, 7, 7, 7, 7, 6, 6, 6, 6, 6, 6, 5, 5, 5, 4, 3, 2

Quiz 19 Oct 28

If $\sin \beta = -\frac{5}{\sqrt{34}}$ and $\cot \beta > 0$, then use a right triangle to find the exact value of $\cot \beta$ and $\cos \beta$.

Scores: 9, 9, 9, 9, 9, 9, 8, 7, 7, 7, 7, 7, 7, 7, 7, 6, 6, 6, 5, 5, 5, 5, 4, 4, 4, 3, 2, 1, 1, 0

Quiz 18 Oct 26

If $\sec \theta = -\frac{\sqrt{58}}{3}$ and θ is in the II quadrant, then use a right triangle to find the exact value of $\sin \theta$ and $\tan \theta$.

Scores: 9, 9, 9, 9, 8, 8, 8, 8, 8, 8, 8, 7, 7, 7, 7, 6, 6, 5, 5, 5, 4, 3, 3, 3, 3, 3, 3, 3, 2, 0, 0

Quiz 17 Oct 23

Determine the quadrant that the following angles are in.

1. $\sin \alpha < 0$ and $\sec \alpha > 0$ (4 pts.)

2. $\tan \beta > 0$ and $\csc \beta < 0$ (5 pts.)

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 7, 7, 6, 5, 5, 5, 4, 4, 4, 4, 4, 4, 3, 2, 1, 0

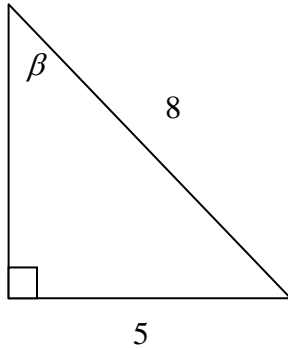
Quiz 16 Oct 21

If $\tan \alpha = \frac{\sqrt{15}}{6}$ and α is an acute angle, then use a right triangle to find the exact value of $\sin \alpha$ and $\sec \alpha$.

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 8, 8, 8, 8, 8, 7, 6, 6, 6, 5, 3, 3, 2, 0

Quiz 15 Oct 19

Given:



Find the exact value of $\sin \alpha$ and $\cot \alpha$.

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 8, 7, 7, 6, 6, 6, 6, 4, 3, 1, 1

Quiz 14 Oct 16 (Repeated)

The terminal side of the angle θ is in the II quadrant and lies on the line $12x + 15y = 0$. Find the exact value of 1. $\sec \theta$ 2. $\sin \theta$

Quiz 14 Oct 14

The terminal side of the angle α is in the III quadrant and lies on the line $10x - 6y = 0$. Find the exact value of 1. $\cos \alpha$ 2. $\cot \alpha$

Quiz 13 Oct 12

If the point $(-9, 3)$ is on the terminal side of the angle β , then find the exact value of

1. $\csc \beta$ (5 pts.) 2. $\tan \beta$ (4 pts.)

Scores: 9, 9, 9, 9, 8, 8, 8, 8, 8, 8, 8, 8, 8, 7, 5, 5, 5, 5, 5, 5, 4, 4, 4, 4, 4, 4, 3, 2, 2, 1, 0, 0

Quiz 12 Oct 9

Find the exact value of the following:

1. $\sec\left(-\frac{29\pi}{2}\right)$ (4 pts.) 2. $\csc 690^\circ$ (5 pts.)

Scores: 9, 9, 8, 7, 7, 7, 7, 6, 6, 5, 5, 5, 5, 5, 5, 4, 4, 4, 4, 3, 3, 3, 2, 2, 1, 0, 0, 0, 0

Quiz 11 Oct 7

Find the exact value of the following:

1. $\cot \frac{142\pi}{3}$ (5 pts.) 2. $\sin 810^\circ$ (4 pts.)

Scores: 9, 8, 8, 8, 7, 7, 7, 7, 7, 7, 7, 7, 6, 6, 6, 6, 6, 6, 5, 5, 4, 4, 3, 3, 3, 1, 1, 1, 1, 0, 0

Quiz 10 Sept 30

- Find the angle between 0 and 2π that is coterminal with the angle $\frac{116\pi}{3}$. (4 pts.)
- Find the angle between -2π and 0 that is coterminal with the angle $-\frac{163\pi}{6}$. (5 pts.)

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 8, 8, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 6, 6, 6, 2, 1, 0, 0, 0

Quiz 9 Sept 28

Find the exact value of the following. (3 pts. each)

- $\tan\left(-\frac{5\pi}{4}\right)$
- $\csc 315^\circ$
- $\sin \frac{4\pi}{3}$

Scores: 9, 8, 8, 8, 8, 8, 8, 7, 7, 7, 7, 6, 6, 6, 6, 6, 6, 5, 5, 5, 5, 5, 4, 4, 3, 3, 2, 2, 1, 1, 0, 0

Quiz 8 Sept 25

- $\gamma = 270^\circ$ Location of $\gamma = 270^\circ$ _____ $\gamma' =$ _____ (3 pts.)

- Find the exact value of the following: (3 pts. each)

- $\cos \frac{2\pi}{3}$
- $\cot(-150^\circ)$

Scores: 8, 8, 8, 6, 6, 6, 6, 6, 6, 5, 5, 5, 5, 4, 3, 3, 3, 3, 3, 3, 2, 1, 1, 1, 0, 0, 0, 0, 0, 0, 0

Quiz 7 Sept 23

Indicate where the terminal side of the angle is located for each of the following angles. Then find the reference angle.

- $\alpha = \frac{25\pi}{22}$ Location of $\alpha = \frac{25\pi}{22}$ _____ $\alpha' =$ _____ (5 pts.)

- $\beta = -310^\circ$ Location of $\beta = -310^\circ$ _____ $\beta' =$ _____ (4 pts.)

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 8, 8, 7, 7, 7, 7, 7, 5, 5, 4, 4, 3, 2, 2, 1, 1, 1, 1, 0, 0, 0, 0, 0

Quiz 6 Sept 21

Find the exact value of the following. (3 pts. each)

- $\sin \frac{\pi}{6}$
- $\sec 30^\circ$
- $\tan \frac{\pi}{3}$

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 8, 8, 8, 8, 6, 6, 6, 6, 6, 6, 6, 5, 3, 3, 3, 3, 0, 0, 0, 0, 0, 0, 0

Quiz 5 Sept 16

Find the exact value of the following: (3 pts. each)

- $\sec 0^\circ$
- $\csc \pi$
- $\cot\left(-\frac{3\pi}{2}\right)$

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 6, 6, 6, 6, 6, 6, 6, 6, 6, 3, 3, 3, 3, 3, 3, 1, 0, 0, 0, 0

Quiz 4 Sept 14

Find the exact value of the following: (3 pts. each)

- $\cos 0$
- $\sin(-90^\circ)$
- $\tan \frac{\pi}{2}$

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 7, 7, 6, 6, 6, 6, 6, 6, 6, 6, 6, 5, 3, 3, 3, 0, 0, 0, 0, 0

Quiz 3 Sept 11

If a central angle of 280° intercepts an arc of length 18 meters, then find the radius of the circle.

Scores: 9, 8, 8, 7, 7, 7, 6, 6, 5, 4, 3, 3, 3, 3, 3, 3, 1, 1, 1, 1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0

Quiz 2 Sept 9

Convert the following angles to radians if given in degrees or to degrees if given in radians: (3 pts. each)

1. $\theta = -\frac{7\pi}{12}$ 2. $\alpha = 135^\circ$ 3. $\beta = 4$

Scores: 9, 9, 9, 8, 8, 8, 8, 8, 7, 7, 7, 7, 7, 7, 7, 6, 6, 6, 6, 6, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 0, 0, 0

Quiz 1 Sept 4

Determine the location of the following angles: (3 pts. each)

1. $\theta = -175^\circ$ 2. $\alpha = \frac{\pi}{2}$ 3. $\beta = \frac{27\pi}{17}$

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 9, 8, 8, 8, 7, 7, 6, 6, 6, 6, 6, 6, 6, 6, 5, 5, 5, 5, 3, 3, 2, 1