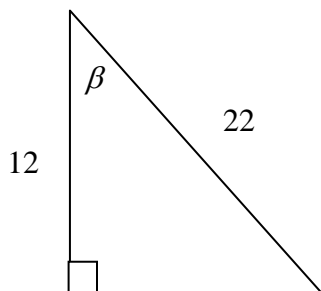


MATH-1330-001 Quiz Scores Spring 2009

Each quiz is worth 9 points.

Quiz 31 April 29

1. Given:



Find β . (3 pts.)

2. Find $\tan \left[\sin^{-1} \left(-\frac{3}{7} \right) \right]$ (6 pts.)

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

Quiz 30 April 27

Find the exact value of:

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

2. $\text{Arc sin } \frac{\sqrt{3}}{2}$ (2 pts.)

2. The angle α passes through the point $(-3, -7)$. Find α . (5 pts.)

Scores: 5, 3, 3, 3, 2, 2, 2, 2, 2, 2, 2, 1

Quiz 29 April 24

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

1. $\tan^{-1} \left(-\sqrt{3} \right)$

2. $\text{Arc tan } 1$

3. $\tan^{-1} \frac{1}{\sqrt{3}}$

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

Quiz 28 April 22

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

1. $\cos^{-1} \left(-\frac{1}{2} \right)$

2. $\text{Arc cos } 0$

3. $\cos^{-1} \frac{\sqrt{3}}{2}$

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

Quiz 27 April 20

Find the exact value of :

1. $\sin^{-1} \left[\sin \left(-\frac{4\pi}{3} \right) \right]$ (5 pts.)

2. $\sin \left(\text{Arc sin } \frac{5\pi}{6} \right)$ (4 pts.)

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

Quiz 26 April 17

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

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

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

Quiz EC 2 April 15

From a point A, which is 15 feet above the ground, the angle of elevation to the top of a building is 46° and the angle of depression to the base of the building is 18° . Find the height of the building.

Scores: 5, 4, 2, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0

Quiz EC 1 April 13

From a point P on level ground, the angle of elevation to the top of a mountain is 32° . From a point 40 yards closer to the mountain and on the same line with P and the base of the mountain, the angle of elevation to the top of the mountain is 67° . Find the height of the mountain.

Scores: 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0

Quiz 25 April 10

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

1. $\sin \left(-\frac{11\pi}{9} \right)$ 2. $\cot 1725^\circ$ 3. $\sec \frac{33\pi}{7}$

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

Quiz 24 April 8

A ladder is leaning against the top of a vertical wall. The top of the ladder makes an angle of 23° with the wall. If the bottom of the ladder is 17 meters from the base of the wall, then how long is the ladder? Round your answer to the nearest tenth.

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 6, 6, 6, 6, 5, 4, 3, 3, 0, 0, 0

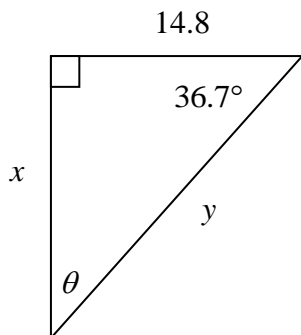
Quiz 23 April 6

The angle of depression from the top of a building to an object on the ground is 53° . If the object is 95 feet from the base of the building, then find the height of the building. Round your answer to the nearest tenth.

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

Quiz 22 April 3

Given:



Find the exact value of θ , x , and y .

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

Quiz 21 April 1

If $\cos \beta = \frac{5}{9}$ and $\tan \beta < 0$, then

1. Determine the quadrant that the angle β is in.
2. Use a right triangle to find the exact value of $\csc \beta$.
3. Use a right triangle to find the exact value of $\tan \beta$.

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

Quiz 20 Mar 30

If $\cot \theta = -\frac{\sqrt{10}}{6}$ and θ is in the II quadrant, then use a right triangle to find the exact value of $\csc \theta$ and $\cos \theta$.

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

Quiz 19 Mar 27

Determine the quadrant that the following angles are in.

1. $\csc \alpha < 0$ and $\cos \alpha > 0$ (4 pts.)
2. $\cot \beta > 0$ and $\sin \beta < 0$ (5 pts.)

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

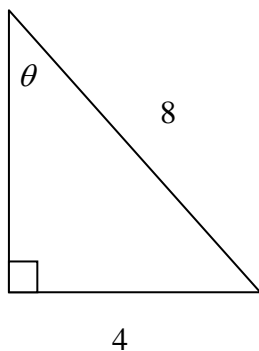
Quiz 18 Mar 25

If $\sin \alpha = \frac{\sqrt{5}}{7}$ and α is an acute angle, then find the exact value of $\sec \alpha$ and $\tan \alpha$.

Scores: 9, 9, 9, 9, 9, 9, 9, 8, 8, 8, 8, 7, 7, 7, 4, 1, 0

Quiz 17 Mar 23

Given:



Find the exact value of $\cos \theta$ and $\cot \theta$.

Scores: 9, 9, 9, 9, 9, 8, 8, 8, 8, 8, 8, 8, 8, 7, 7, 3, 1, 0

Quiz 16 Mar 20

If the terminal side of the angle β is in the II quadrant and lies on the line $8x + 14y = 0$, then find the exact value of 1. $\csc \beta$ 2. $\tan \beta$.

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

Quiz 15 Mar 18

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

1. $\sin \alpha$ (5 pts.)
2. $\cot \alpha$ (4 pts.)

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

Quiz 14 Mar 16

Find the exact value of the following:

- $\sec\left(-\frac{52\pi}{3}\right)$ (5 pts.)
- $\tan 1230^\circ$ (4 pts.)

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

Quiz 13 Mar 6

Find the exact value of the following:

- $\csc \frac{137\pi}{6}$ (5 pts.)
- $\cos(-900^\circ)$ (4 pts.)

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

Quiz 12 Mar 4

- Find the angle between 0 and 2π that is coterminal with the angle $\frac{143\pi}{3}$. (5 pts.)
- Find the angle between -2π and 0 that is coterminal with the angle $-\frac{131\pi}{9}$. (4 pts.)

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

Quiz 11 Feb 27

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

- $\cot\left(-\frac{5\pi}{6}\right)$
- $\sin 300^\circ$
- $\sec\left(-\frac{4\pi}{3}\right)$

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

Quiz 10 Feb 23

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

- $\cos \frac{7\pi}{6}$
- $\csc(-225^\circ)$
- $\tan \frac{5\pi}{3}$

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

Quiz 9 Feb 20

Indicate where the terminal side of the angle is located for each of the following angles. Then find the reference angle. (3 pts. each)

- $\alpha = 295^\circ$ Location of 295° _____ $\alpha' =$ _____ (3 pts.)
- $\beta = \frac{\pi}{2}$ Location of $\frac{\pi}{2}$ _____ $\beta' =$ _____ (2 pts.)
- $\theta = -\frac{14\pi}{11}$ Location of $-\frac{14\pi}{11}$ _____ $\theta' =$ _____ (4 pts.)

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

Quiz 8 Feb 13

Indicate whether the given trigonometric function is positive or negative in the given quadrant.

- | | Function | Quadrant | | Function | Quadrant |
|----|----------|----------|----|----------|----------|
| 1. | sin | II | 5. | csc | III |
| 2. | tan | IV | 6. | cot | III |

3. cos III 7. sin I
 4. sec IV 8. cos II
 Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 8, 8, 8, 8, 7, 5, 4, 3

Quiz 7 Feb 11

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

1. $\cot \frac{\pi}{3}$ 2. $\sec 30^\circ$ 3. $\sin \frac{\pi}{6}$

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

Quiz 6 Feb 9

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

1. $\cos 2\pi$ 2. $\csc \pi$ 3. $\tan 270^\circ$

Scores: 9, 9, 9, 9, 6, 6, 6, 6, 6, 6, 6, 5, 4, 3, 3, 3, 3, 0, 0, 0

Quiz 5 Feb 6

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

1. $\sin \frac{3\pi}{2}$ 2. $\tan (-\pi)$ 3. $\cos 90^\circ$

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

Quiz 4 Feb 4

If a central angle of 105° intercepts an arc of length 14 inches, then find the radius of the circle.

Scores: 8, 8, 8, 6, 5, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0

Quiz 3 Feb 2

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

1. $\theta = 84^\circ$ 2. $\alpha = -\frac{16\pi}{9}$ 3. $\beta = 2$

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

Quiz 2 Jan 30

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

1. $\theta = \frac{18\pi}{11}$ 2. $\alpha = -\frac{8\pi}{7}$ 3. $\beta = -\frac{3\pi}{2}$

Scores: 9, 9, 9, 9, 6, 4, 4, 4, 4, 3, 3, 3, 3, 3, 0, 0, 0, 0, 0, 0

Quiz 1 Jan 21

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

1. $\theta = 195^\circ$ 2. $\alpha = 270^\circ$ 3. $\beta = -330^\circ$

Scores: 9, 9, 9, 9, 9, 9, 9, 9, 9, 8, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 6, 4