Final Exam: Chapter 5 Review

Score: 0/13 Answered: 0/13

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Questions

Question 1

0/1 pt 3 99

Convert the angle $135°$ to radians. Give the exact value and use **pi** for π.

$\frac{3\pi}{4}$

Submit Question

Question 2

0/1 pt 3 99

Convert the angle $\frac{4\pi}{3}$ from radians to degrees.

240 degrees

Question Help: Video

Submit Question

Question 3

0/1 pt 3 99

The angle between 0 and 2π in radians that is coterminal with the angle $\frac{49}{10}\pi$ in radians is

2.8274333882308 .

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Question 4

0/1 pt 3 99

On a circle of radius 7 feet, what angle would subtend an arc of length 3 feet?

24.555334077035 degrees

Question Help: Video

Submit Question

Question 5

0/1 pt 3 99

A sector of a circle has a central angle of $30°$. Find the area of the sector if the radius of the circle is 6 cm.

9.4247779607694 cm^2

Question Help: Video

Submit Question

Question 6

0/1 pt 3 99

A truck with 22-in.-diameter wheels is traveling at 45 mi/h.

Find the angular speed of the wheels in rad/min: 4320 rad/min

How many revolutions per minute do the wheels make?

687.54935415699 rpm

Question Help: Video

Submit Question

Question 7

0/1 pt 3 99

Without using a calculator, compute the sine and cosine of $225°$ by using the reference angle.

(Type **sqrt(2)** for $\sqrt{2}$ and **sqrt(3)** for $\sqrt{3}$.)

What is the reference angle? 45 degrees.

In what quadrant is this angle? 3 (answer **1**, **2**, **3**, or **4**)

$\sin(225°) =$ -0.70710678118655

$\cos(225°) =$ -0.70710678118655

Submit Question

Question 8

0/1 pt 3 99

If $\theta = \frac{5\pi}{4}$, then

$\cos(\theta)$ = [ ] $-\frac{\sqrt{2}}{2}$

$\sin(\theta)$ = [ ] $-\frac{\sqrt{2}}{2}$

Give exact values. No decimals allowed!

Submit Question

Question 9 0/1 pt 3 99

Find an angle θ with $0° < \theta < 360°$ that has the same:

Sine as $260°$: θ = [ ] 280 degrees

Cosine as $260°$: θ = [ ] 100 degrees

Submit Question

Question 10 0/1 pt 3 99

Find the coordinates of a point on a circle with radius 25 corresponding to an angle of $85°$

(x,y) = ([ ] 2.1788935686915 , [ ] 24.904867452294)

Round your answers to three decimal places.

Submit Question

Question 11 0/1 pt 3 99

If $\theta = \frac{13\pi}{6}$, then find exact values for the following:

$\sec(\theta)$ equals [ ] $\frac{2\sqrt{3}}{3}$

$\csc(\theta)$ equals [ ] 2

$\tan(\theta)$ equals [ ] $\frac{\sqrt{3}}{3}$

$\cot(\theta)$ equals [ ] $\sqrt{3}$

Submit Question

Question 12 0/1 pt 3 99

If $\sin(\theta) = -\frac{2}{3}$, and θ is in quadrant III , then find

(a) $\cos(\theta) =$ [ ] -0.74535599249963

(b) $\tan(\theta) =$ [ ] 0.89442719100072

(c) $\sec(\theta) =$ [ ] -1.3416407865004

(d) $\csc(\theta) =$ [ ] -1.5

(e) $\cot(\theta) =$ [ ] 1.1180339887489

Submit Question

Question 13 0/1 pt 3 99

Simplify $\frac{1+\sec(t)}{1+\cos(t)}$ to a single trig function.

[ ] $\sec(t)$

Submit Question