

Chapter 4 Review

Name _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

Convert from degrees to radians.

1) 45° 1) _____

2) 570° 2) _____

3) 216° 3) _____

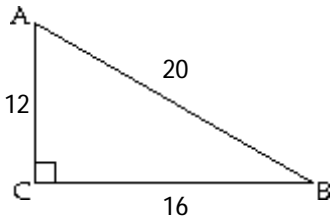
Convert the radian measure to degree measure. Use the value of π found on a calculator and round answers to two decimal places.

4) $-\frac{23}{9}\pi$ 4) _____

5) 2.0443 5) _____

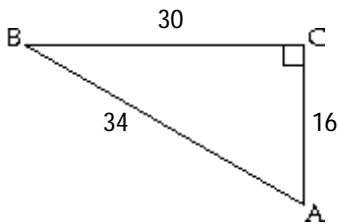
Find the exact values of the indicated trigonometric functions. Write fractions in lowest terms.

6) 6) _____



Find $\sin A$ and $\cos A$.

7) 7) _____



Find $\sec A$ and $\csc A$.

Assume that θ is an acute angle in a right triangle satisfying the given conditions. Evaluate the indicated trigonometric function.

8) $\sin \theta = \frac{9}{10}$; $\cos \theta$ 8) _____

9) $\cos \theta = \frac{10}{11}$; $\sec \theta$ 9) _____

Give the exact value.

10) $\csc \frac{\pi}{3}$ in Quadrant I

10) _____

Find the amplitude of the function.

11) $y = -4 \sin \frac{1}{3}x$

11) _____

Find the period of the function.

12) $y = 5 \cos \frac{1}{3}x$

12) _____

Describe the transformations required to obtain the graph of the function $f(x)$ from the graph of the function $g(x)$.

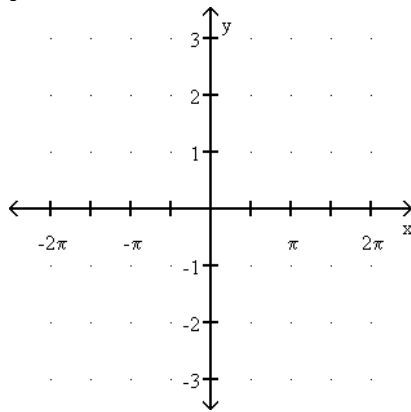
13) $f(x) = 9 \cos x$; $g(x) = \cos x$

13) _____

Graph the function.

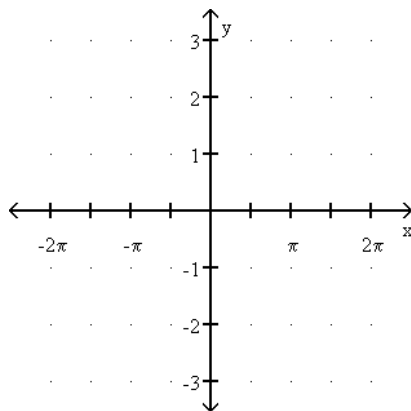
14) $y = 2 \cos x$

14) _____



15) $y = \frac{3}{4} \sin \frac{1}{2}x$

15) _____



Find the zeros of the function in the interval $[-2\pi, 2\pi]$.

16) $f(x) = 3 \cos x$

16) _____

17) $f(x) = -4 \sin x$

17) _____

Write an equation for a sine curve that has the given amplitude and period, and which passes through the given point.

18) Amplitude 5, period $\frac{\pi}{2}$, point (0, 0)

18) _____

Find the specified quantity.

19) Find the period of $y = -5 \sin\left(6x + \frac{\pi}{2}\right)$.

19) _____

20) Find the phase shift of $y = 3 + 3 \sin\left(5x + \frac{\pi}{2}\right)$.

20) _____

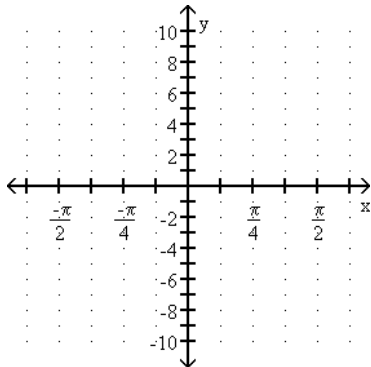
21) Find the vertical translation of $y = 5 - 2 \sin\left(5x + \frac{\pi}{6}\right)$.

21) _____

Graph the function.

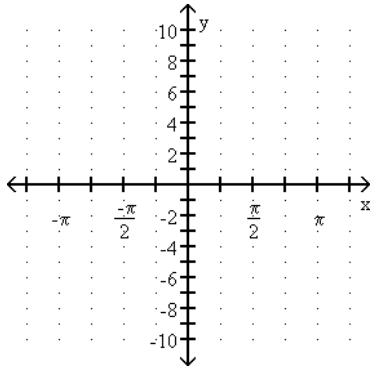
22) $y = -\tan 4x$

22) _____



23) $y = \sec 2x$

23) _____



Provide an appropriate response.

24) Find the angle θ (if it exists) in the interval $[0^\circ, 90^\circ)$ for which $\sin \theta = \cos \theta$.

24) _____