Trigonometry

Quiz 2

Sept 11, 2008   Name _____

Covering A1 – A5

_____ 1. An angle θ in standard position whose measure is $24{,}972^o$ has its terminal side in which quadrant.?
A. I   B. II   C. III   D. IV

_____ 2. Consider an angle θ in standard position whose measure is 120°. What is the measure of this angle in radians?

A $\dfrac{5\pi}{6}$ B. $\dfrac{2\pi}{3}$ C. $\dfrac{\pi}{2}$ D. $\dfrac{\pi}{6}$ E. $\dfrac{4\pi}{5}$

_____ 3. Determine correct to 4 decimal places: sec(-1.5 radians). Note that I changed the angle to a negative quantity. A calculator might prove helpful.
A. 14.1368   B.0.0707   C. 1.0025   D. 0.9975   E. 1.0003
F. none of these values are correct.

_____ 4. Find the radian measure of the central angle of a circle whose radius is 16 cm that intercepts an arc of length 24 cm.

A. $\dfrac{3}{2}$ B. 0.8   C. $\dfrac{\pi}{6}$ D. 0.16   E. 20   F. None of these is correct.

_____ 5. Suppose $\cos(t) = \dfrac{4}{5}$. Use this fact to determine $\sin(2\pi - t)$.

A. $\dfrac{4}{5}$ B. $\dfrac{-4}{5}$ C. $\dfrac{3}{5}$ D. $\dfrac{-3}{5}$ E. none of these values are correct.

_____ 6. Determine $\csc(\dfrac{-17\pi}{4})$.

A. $-\sqrt{2}$ B. $\dfrac{-\sqrt{2}}{2}$ C. $\dfrac{-2\sqrt{3}}{3}$ D. $\sqrt{2}$ E. $\dfrac{\sqrt{2}}{2}$

_____ 7. Determine the exact value of $\tan(\dfrac{\pi}{6})$

A. -0.5   B. $\dfrac{\sqrt{3}}{2}$ C. 1   D. $\dfrac{\sqrt{3}}{3}$ E. $\sqrt{3}$

_____ 8. Consider an angle θ in standard position. Suppose the terminal side of the angle passes through the point (-12,5). Find the exact value of the secant of this angle.

A. $\dfrac{-13}{12}$ B. $\dfrac{-\sqrt{2}}{2}$ C. $\dfrac{-12}{13}$ D. $\dfrac{-5}{12}$ E. $\dfrac{-12}{5}$

_____ 9. Suppose we have some angle whose name is α and our good friend α is in standard position and α's terminal side is in the first quadrant. Suppose further that we know that $\cos(\alpha) = \frac{1}{3}$. Use your trigonometric talents to their fullest to determine $\sin(\alpha)$.
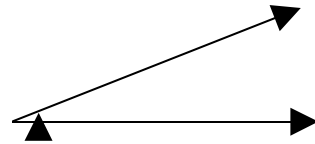
A. $\frac{-\sqrt{8}}{3}$ B. $\frac{3}{1}$ C. $\frac{1}{\sqrt{8}}$ D. $\frac{\sqrt{8}}{3}$ E. $\frac{-3\sqrt{8}}{8}$

_____ 10. Suppose θ is a positive angle, and suppose it is the smallest possible positive angle which can be such that $\sec(\theta)=2$ What is the measure of θ ?
A. 30   B. 45   C. 60   D. 90   E. 120

_____ 11. Consider the angle shown at the right. It's measure in
Radians would be closest to:

A. $\frac{2\pi}{3}$ B. $\frac{\pi}{2}$ C. $\frac{\pi}{3}$ D. $\frac{\pi}{4}$ E. $\frac{\pi}{6}$

_____ 12. Consider the formula $y = A\sin B(x + C) + D$ Each of the letters A, B, C, and D affect one aspect of the resulting graph. Which of the following **best** describes B:
A. B states the amplitude.
B. $|B|$ determines the amplitude.
C. $|B|$ states the period of the graph.
D. B determines the horizontal shift of the graph.
E. $|B|$ affects period but doesn't directly state what the period is.