

# Trigonometry

Quiz 2

Aug 31, 2012

Covering A1 - A2

19 possible

19. Name

Key

3π

1. Give the exact value of the number of radians in one and one half a circles. (not multiple guess, just place the answer in the blank!)

A

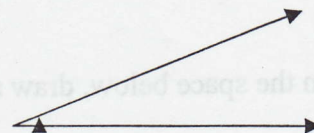
2. An angle  $\theta$  in standard position whose measure is  $43,216^\circ$  has its terminal side in which quadrant?

- A. I B. II C. III D. IV

E

3. 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.  $\frac{\pi}{6}$



A

4. Consider an angle  $\theta$  in standard position whose measure is  $150^\circ$ . What is the measure of this angle in radians?

- A.  $\frac{5\pi}{6}$  B.  $\frac{7\pi}{6}$  C.  $\frac{\pi}{2}$  D.  $\frac{\pi}{6}$  E.  $\frac{4\pi}{5}$  F. None of these is correct

B

5. Find the radian measure of the central angle of a circle whose radius is 20 cm that intercepts an arc of length 16 cm.

- A. 1.25 B. 0.8 C.  $\frac{\pi}{6}$  D. 0.16 E. 20

D

6. Which of the following angles, if drawn in standard position, would be coterminal with an angle whose measure is  $\frac{5\pi}{6}$ :

- A.  $\frac{\pi}{6}$  B.  $-\frac{5\pi}{6}$  C.  $\frac{13\pi}{6}$  D.  $\frac{17\pi}{6}$  E. none of these values are correct.

A

7. What is the supplement of an angle whose measure is  $23^\circ$

- A.  $157^\circ$  B.  $147^\circ$  C.  $167^\circ$  D.  $137^\circ$  E. None of these is correct

$\sqrt{2}$

8. Give the exact value of  $\sec(45^\circ)$  (it's not multiple guess, just put your ans in the blank)

$\frac{1}{\sqrt{3}} = \frac{\sqrt{3}}{3}$

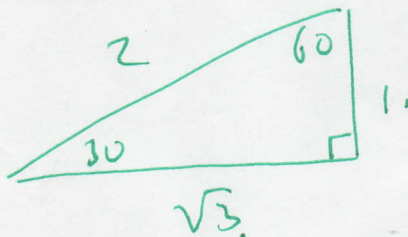
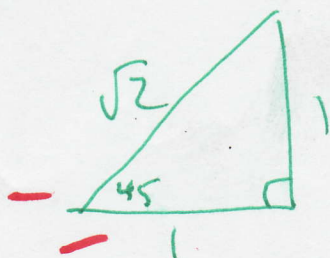
9. Give the exact value of  $\tan(\frac{\pi}{6})$

$\sqrt{3}$

10. Give the exact value of  $\tan(\frac{\pi}{3})$

$\frac{4\pi}{7}$

11. Give the exact value of the supplement of an angle whose measure is  $\frac{3\pi}{7}$ .



$\frac{7\pi}{12}$  12. Convert the measure of the following angle to radians, give the exact value:  $105^\circ$

$\cos \theta$  13. Which trigonometric function is the reciprocal of  $\sec \theta$

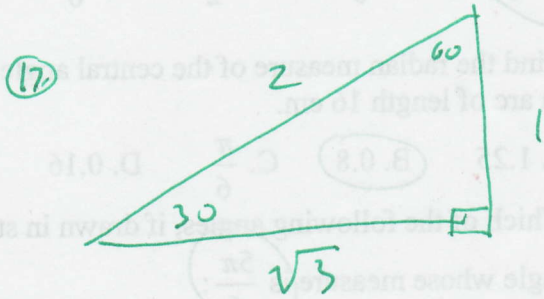
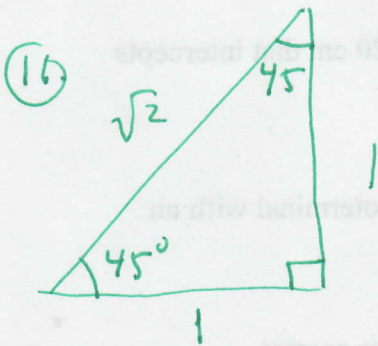
$57^\circ$  14. What is the complement of an angle whose measure is  $33^\circ$

$57.3^\circ$  or  $\frac{157}{180}$  15. How many degrees are in one radian? You may either give the exact value or a decimal approximation, but try to get the answer correct.

16-17: In the space below, draw and correctly label the  $45^\circ 45^\circ 90^\circ$  and  $30^\circ 60^\circ 90^\circ$  triangles.

18. Suppose Earth is 8000 miles in diameter and city A is  $17^\circ 22' 32''$  and city B is  $23^\circ 39' 49''$  north of the equator. Suppose city B is directly north of city A. How many miles north of A is city B? Use the space below.

Please be certain you answer question 19. I will deduct a point if you fail to answer it AND I'll deduct a point if I simply can't read the answer.



439 miles 18.

