NAME_____ DATE_____ SCORE_____

Review Multiple Choice Test

Directions: *Write the letter of the correct answer in the space provided.*

1. Convert 34°57′ to radians. Give the answer to the nearest hundredth of a radian.

a. 34.57
b. 34.95
c. 0.61
d. 2002.49
e. None of these

2. A circular sector has a radius of 9 and a central angle of 2 radians. Find the arc length.

a. 18
b. $\frac{\pi}{10}$
c. 9π
d. 18π
e. None of these

3. If the terminal ray of θ passes through $(-4, 5)$, find $\cos\theta$.

a. $-\frac{4}{5}$ b. $-\frac{4}{\sqrt{41}}$
c. $\frac{3}{5}$ d. $\frac{5}{\sqrt{41}}$
e. None of these

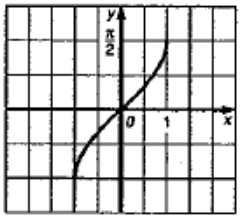
4. Express $\cos(-128°)$ in terms of its reference angle.

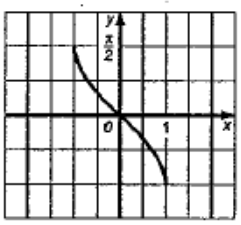
a. $\cos 232°$ b. $\cos(-38°)$
c. $-\cos 38°$ d. $-\cos 52°$
e. None of these

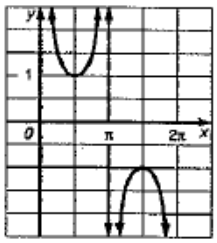
5. Simplify $\cot(x + \pi)$.

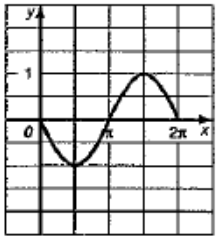
a. $\cot x$ b. $-\cot x$
c. $\tan x$ d. $-\tan x$
e. None of these

6. Which graph below represents $y = \text{Sin}^{-1} x$?

a. 

b. 

c. 

d. 

e. None of these

7. How many solutions are there to $\csc^2 x = 25$ $(0 \le x < 2\pi)$?

a. 1
b. 2
c. 3
d. 4
e. None of these

8. Find the equation of a line with inclination 45° that passes through (1, 4).

a. $y - 4 = 45(x - 1)$
b. $y - 4 = x - 1$
c. $y + 4 = \sqrt{2}(x + 1)$
d. $y + 4 = x + 1$
e. None of these

ANSWERS

1. _____ (3)
2. _____ (3)
3. _____ (3)
4. _____ (3)
5. _____ (3)
6. _____ (3)
7. _____ (3)
8. _____ (3)

TRUE-FALSE QUESTIONS (If it's True, explain why. If it's False, give a counterexample)

01) $\sin\theta = \cos(90° + \theta)$

02) $\tan^2\theta + \cot^2\theta = 1$

03) $\csc^2\theta + \sec^2\theta = 1$

04) **The solutions of the eqution** $\sin 2x = \cos 2x$ **over** $0 \le x < 2\pi$. **are**

$$\frac{\pi}{8}, \frac{5\pi}{8}, \frac{9\pi}{8}, \frac{13\pi}{8}$$

05) $\dfrac{1+\cos 4\theta}{\sin 4\theta} \cdot = \tan 2\theta$

06) $\dfrac{\sin^4\theta - \cos^4\theta}{\sin^2\theta - \cos^2\theta} = 1$