Student: _____ **Date:** _____ **Time:** _____	**Instructor:** Fred Khoury **Course:** Math 2312-1000 Precalculus (Fall - 2015) **Book:** Lial: College Algebra and Trigonometry, 4e	**Assignment:** Quiz Sec 3.5

1. Find the exact value of the real number y.

$$y = \sin^{-1}\left(\frac{\sqrt{2}}{2}\right)$$

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

B. $\frac{\pi}{4}$

C. $\frac{2\pi}{3}$

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

2. Use a calculator to give the value in degrees. Round to the nearest degree.

$$\theta = \sin^{-1}(.2079)$$

A. 14°

B. 12°

C. 10°

D. 15°

3. Use a calculator to give the real number value. Round to eight decimal places.

$$y = \text{arcsec}\,(2.8842912)$$

A. 1.51398220

B. 1.21673970

C. 0.35405662

D. 0.69714051

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4. Use a calculator to give the real number value. Round to eight decimal places.

$y = \mathbf{cot}^{-1}(2.5181552)$

- A. 0.37801780
- B. 21.65882400
- C. 68.34117600
- D. 1.19277850

5. Evaluate the expression.

$$\mathbf{sin}\left(\mathbf{sin}^{-1}\left(\frac{3}{5}\right) + \mathbf{tan}^{-1}(-2)\right)$$

- A. $-\frac{\sqrt{5}}{5}$
- B. $\frac{\sqrt{5}}{5}$
- C. $\frac{2\sqrt{5}}{25}$
- D. $-\frac{2\sqrt{5}}{25}$

6. Write the following as an algebraic expression in u, u > 0.

$\mathbf{cos}\ (\ \mathbf{arcsin}\ (u))$

- A. $\frac{\sqrt{u^2+1}}{u}$
- B. $\sqrt{u^2+1}$
- C. $\sqrt{u^2-1}$
- D. $\sqrt{1-u^2}$

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7. Write the following as an algebraic expression in u, u > 0.

$$\tan\left(\cos^{-1}\frac{u}{2}\right)$$

A. $u^2\sqrt{4}$

B. $\dfrac{u\sqrt{4-u^2}}{4-u^2}$

C. $\dfrac{\sqrt{u^2-4}}{u}$

D. $\dfrac{\sqrt{4-u^2}}{u}$

8. Write the following as an algebraic expression in u, u > 0.

$$\tan\left(\operatorname{arcsec}\frac{\sqrt{u^2+4}}{u}\right)$$

A. $\dfrac{u\sqrt{u^2+4}}{u^2+4}$

B. $2u$

C. $\dfrac{2}{u}$

D. $\dfrac{\sqrt{u^2+2}}{u^2+2}$

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9. Write the following as an algebraic expression in u, $u > 0$.

$$\sin\left(\operatorname{arcsec}\frac{\sqrt{u^2+9}}{u}\right)$$

A. $u\sqrt{3}$

B. $\dfrac{u\sqrt{u^2+3}}{u^2+3}$

C. $\dfrac{\sqrt{u^2+3}}{u^2+3}$

D. $\dfrac{3\sqrt{u^2+9}}{u^2+9}$