

Quiz #1

Name: _____

Math 150, Prof. Beydler

Thursday, March 9, 2017

Directions: Show all work. No books or notes. A **scientific calculator** is allowed. Your desk and lap must be clear (no phones, notebooks, etc.). Write your answers in the indicated places, or box your answers. Good luck!

1. (2 points) Convert 42.128° to degrees, minutes, and seconds to the nearest second.

Answer: _____

2. (1 point) Find the angle of least positive measure (not equal to the given measure) that is coterminal with the following angle.

854°

Answer: _____

3. (3 points) The terminal side of an angle θ in standard position passes through the point $(-3, 1)$. Find the values of the six trigonometric functions of angle θ .

$\sin \theta =$ _____

$\csc \theta =$ _____

$\cos \theta =$ _____

$\sec \theta =$ _____

$\tan \theta =$ _____

$\cot \theta =$ _____

4. (2 points) Evaluate the following expression.

$\sin^2 90^\circ + \cos^2 180^\circ$

Answer: _____

5. (1 point) Find $\csc \theta$ given that $\sin \theta = -\frac{2}{5}$.

Answer: _____

6. (1 point) Identify the quadrant of an angle θ that satisfies the given conditions.

$$\cos \theta < 0, \cot \theta > 0$$

QI QII QIII QIV (circle one)

7. (1 point) Decide whether each statement is *possible* or *impossible*.

$\sin \theta = -0.5$ possible impossible (circle one)

$\sec \theta = \frac{1}{2}$ possible impossible (circle one)

8. (2 points) Suppose that angle θ is in quadrant IV and $\tan \theta = -\frac{2}{3}$. Find the value of $\sin \theta$.

Answer: _____

9. (2 points) Find $\cot \theta$, given that $\sec \theta = -3$ and $\sin \theta < 0$.

Answer: _____