Math 1113 Sample Quiz Name _____

Precalculus Sections 4.1, 4.2, 4.3, 4.4 Date _____

Directions. Show all work. Circle final answers.

Find a coterminal angle for the following angle.

1. $\frac{-3\pi}{4}$

Find the complement angle of the following.

2. $\frac{2\pi}{5}$

Convert from Radians to Degrees.

3. $\frac{9\pi}{2}$

A circle has radius of 4 inches. Find the arc length for the following angle. $(s = r\theta)$

4. 120°

5. Evaluate the six trig functions for the following angle. $\frac{-\pi}{3}$

6. List which trig functions are even and which are odd.

Even:_____ Odd:_____

7. Find the following values of $\sin 45^{\circ}$, $\cos 60^{\circ}$, and $\tan 30^{\circ}$.

8. Let θ be an acute angle such that $\tan\theta = 3$. Find the value of $\sec\theta$.

9. You are 20 yards from a river. Rather than walking directly to the river, you walk 40 yards along a straight path to the rivers edge. Find the acute angle θ between this path and the river's edge.

10. Given $\tan\theta = \frac{-5}{4}$ and $\cos\theta > 0$, find $\sin\theta$ and $\sec\theta$. (Hint: Draw a picture.)

11. Find the reference angle for $\theta = 340^{o}$ and $\theta = -\frac{3\pi}{4}$

12. Evaluate each trig function. $\cos\frac{4\pi}{3}$ and $\tan(-210^{o})$.

(Hint: Remember All Students Take Calculus.)

13. Let θ be an angle in Quadrant II such that $\sin\theta = \frac{1}{3}$, by using trigonometric identities find: $\cos\theta$.

Answers Sample Quiz

1. $\frac{5\pi}{4}$ (Note: there many answers possible.)	2. $\frac{\pi}{10}$
3. 810^o	4. $\frac{8\pi}{3}$
5. $\sin\left(-\frac{\pi}{3}\right) = \frac{-\sqrt{3}}{2}$ $\csc\left(-\frac{\pi}{3}\right) = \frac{-2\sqrt{3}}{3}$ $\cos\left(-\frac{\pi}{3}\right) = \frac{1}{2}$ $\sec\left(-\frac{\pi}{3}\right) = 2$ $\tan\left(-\frac{\pi}{3}\right) = -\sqrt{3}$ $\cot\left(-\frac{\pi}{3}\right) = \frac{-\sqrt{3}}{3}$	6. Even -> cos and sec Odd -> sin, tan, csc, cot
7. $\sin 45^o = \frac{\sqrt{2}}{2}$, $\cos 60^o = \frac{1}{2}$, $\tan 30^o = \frac{\sqrt{3}}{3}$	8. $\sec\theta = \sqrt{10}$
9. $\theta = 30^o$	10. $\sin\theta = \frac{y}{r} = \frac{-5}{\sqrt{41}}$ $\sec\theta = \frac{r}{x} = \frac{\sqrt{41}}{4}$
11. $\theta = 340^o$ -> $\theta' = 20^o$ $\theta = -\frac{3\pi}{4}$ -> $\theta' = 45^o$	12. $\cos\frac{4\pi}{3} = \frac{-1}{2}$ (Quadrant III) $\tan(-210^o) = \frac{-\sqrt{3}}{3}$ (Quadrant II)
13. $\cos\theta = \frac{-2\sqrt{2}}{3}$	