PreCalc   Name _____

Quiz 5.1-5.3 Information   Date_____Mod _____

What You Need to Know

1. Convert between degrees, minutes, seconds, and decimal forms for angles

2. Find the arc length of a circle ($s = r\theta$, where θ is in radians)

3. Convert from degrees to radians $\left(\theta \cdot \frac{\pi}{180°}\right)$ and from radians to degrees $\left(\theta \cdot \frac{180°}{\pi}\right)$

4. Find the area of a sector of a circle $\left(A = \frac{1}{2}r^2\theta, \text{ where } \theta \text{ is in radians}\right)$

5. Find the exact values of the trigonometric functions using a point on the Unit Circle

6. Find the exact values of the trigonometric functions of quadrantal angles $\left(0, \frac{\pi}{2}, \pi, \frac{3\pi}{2}\right)$

7. Find the exact values of the trig functions of $\frac{\pi}{4} = 45°, \frac{\pi}{6} = 30°,$ and $\frac{\pi}{3} = 60°$

8. Find the exact values of the trig functions for integer multiples of $\frac{\pi}{4} = 45°, \frac{\pi}{6} = 30°,$ and $\frac{\pi}{3} = 60°$

9. Use a calculator to approximate the value of a trigonometric function

10. Use a circle of radius r to evaluate the trigonometric functions

11. Determine the domain, range, and period of the trigonometric functions

12. Determine the signs of the trigonometric functions in a given quadrant

13. Find the values of the trigonometric functions using fundamental identities

14. Find the exact values of the trigonometric functions of an angle given one of the functions and the quadrant of an angle

15. Use even-odd properties to find the exact value of the trigonometric functions

Quiz Information

1. A notecard is **not** permitted on this quiz.

2. This quiz is in two parts. Part 1 is **non-calculator** and Part 2 is **calculator**.

3. A blank Unit Circle will be provided. You may fill it in if you so choose and use it on both parts of the quiz.

4. You should be able to draw and label $30° - 60° - 90°$ and $45° - 45° - 90°$ triangles.

5. You are responsible for knowing the various formulas (arc length, area of sector) and trigonometric identities (reciprocal, quotient, Pythagorean, and even-odd).

6. You are expected to finish the quiz in one period. Make sure you are prepared.