SM2H

Name:_____ Period:_____

Unit 9 Quiz Review

Convert each radian to a degrees and degree measure to radians. **Show all your work.**

1. $\frac{5\pi}{9} \cdot \frac{180}{\pi} = 100°$

2. $185° \cdot \frac{\pi}{180} = \frac{37\pi}{36}$

Find a coterminal angle between **0° and 360°.**

3. 810°

-360

$450°$

-360

$90°$

$\boxed{90°}$

4. $-200°$

$+360$ $= \boxed{160°}$

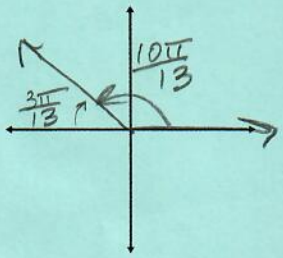
Find a coterminal angle **between 0 and 2π.**

5. $\frac{-4\pi}{7} + \frac{14\pi}{7} = \boxed{\frac{10\pi}{7}}$

6. $\frac{23\pi}{10} - \frac{20\pi}{10} = \boxed{\frac{3\pi}{10}}$

Draw and label the given angle and find the reference angle.

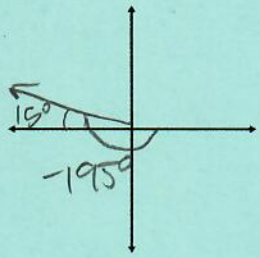
7. $\frac{10\pi}{13}$



$\theta = \frac{10\pi}{13}$

$R = \frac{3\pi}{13}$

8. $-195°$

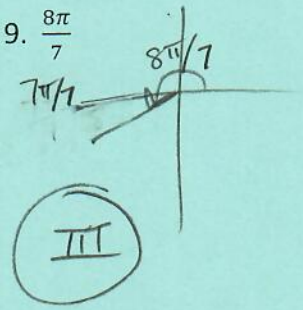


$\theta = -195°$

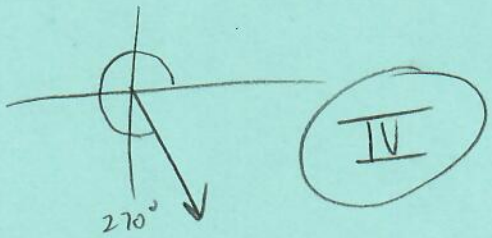
$R = 15°$

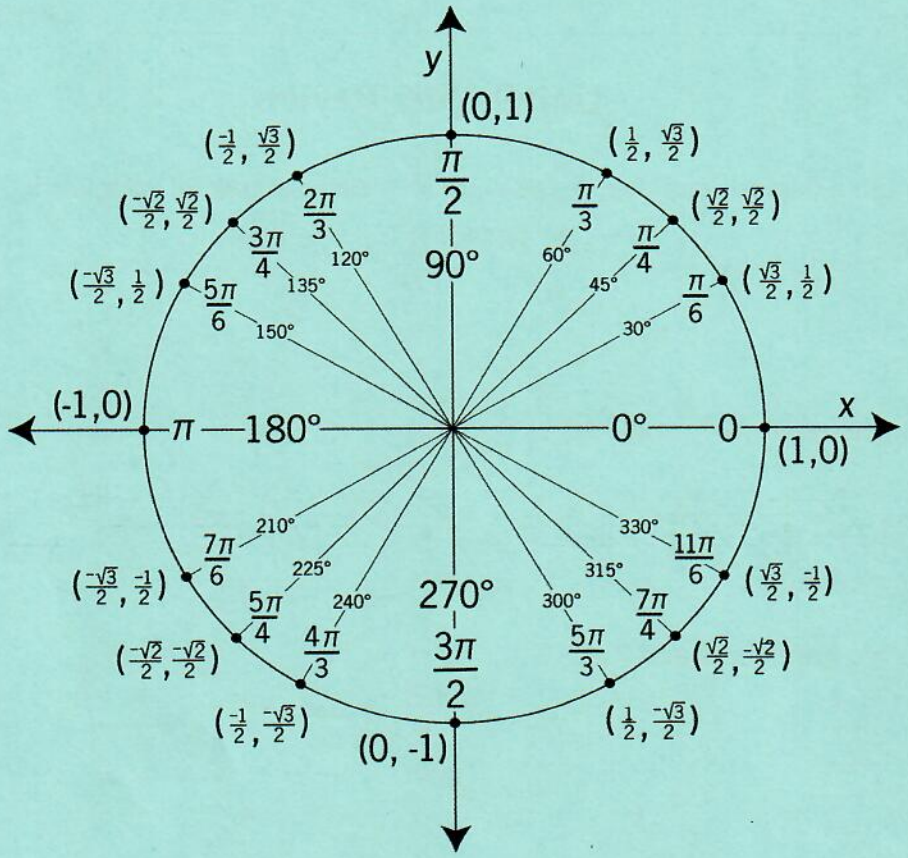
Determine the Quadrant of each angle.

9. $\frac{8\pi}{7}$



10. 290°





Find the unit circle to find the **exact** values of each trigonometric function.

11. $\cos\frac{\pi}{4}$

x $\quad \frac{\sqrt{2}}{2}$

12. $\sin\frac{7\pi}{4}$

y $\quad -\frac{\sqrt{2}}{2}$

13. $\cos(300°)$

x $\quad \frac{1}{2}$

14. $\tan(225°)$

$\frac{y}{x}$ $\quad \frac{-\frac{\sqrt{2}}{2}}{-\frac{\sqrt{2}}{2}} = 1$

15. $\csc 210°$

$\frac{1}{\sin}$ $\quad -2$

$\frac{1}{y}$

16. $\sec\frac{5\pi}{6}$

$\frac{1}{\cos}$ $\quad -\frac{2}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \boxed{\frac{-2\sqrt{3}}{3}}$

$\frac{1}{x}$

17. $\tan\frac{5\pi}{3}$

$\frac{y}{x}$ $\quad \frac{-\frac{\sqrt{3}}{2}}{\frac{1}{2}}$

$-\frac{\sqrt{3}}{\cancel{2}} \cdot \frac{\cancel{2}}{1} = \boxed{-\sqrt{3}}$

18. $\cos(-135°)$

$-\frac{\sqrt{2}}{2}$