

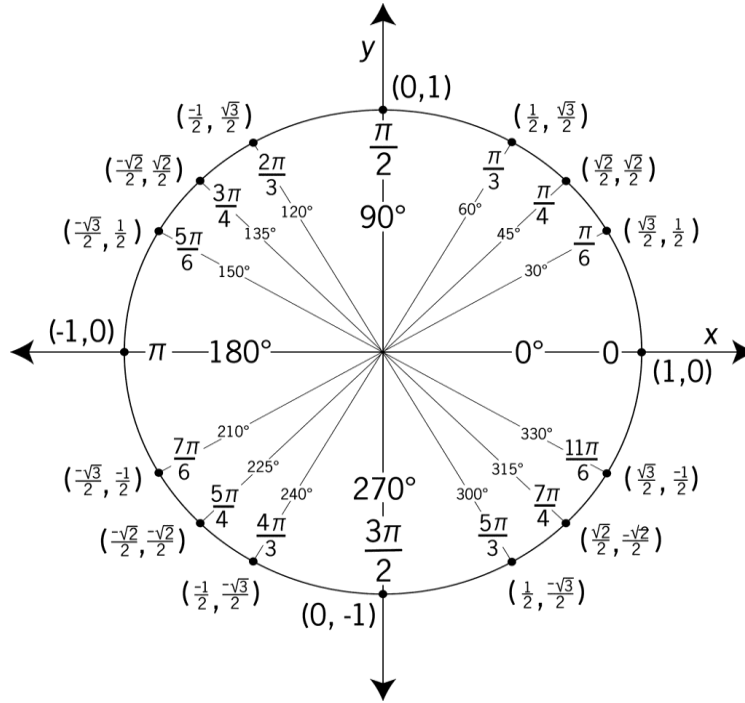
9.3

Name _____ Date _____ Period _____

SCORE: /

Solving Trig Equations with the Unit Circle

Unit Circle Review



Find a positive and negative co-terminal angle.

1. 135°

2. $\frac{\pi}{6}$

Find the exact value of each trigonometric function using the Unit Circle as a reference.

3. $\cos \frac{5\pi}{6}$

4. $\csc \frac{8\pi}{3}$

5. $\sin -120^\circ$

6. $\cos 720^\circ$

7. $\sec \frac{5\pi}{4}$

8. $\cot -60^\circ$

9. $\sin 3\pi$

10. $\tan -\frac{5\pi}{4}$

Solve each equation.

$$11. 8 = 6n + 8 - 6$$

$$12. -6x + 2 - 3 = 11$$

$$13. 2n - 5 = -4 + 3n$$

$$14. 4n - 8 = -4 + 6n$$

Solve each equation for $0 \leq \theta < 360^\circ$

$$15. -\sqrt{2} + 4 \cos \theta = \sqrt{2}$$

$$16. -3 = 6 \sin \theta$$

$$17. -\frac{1}{3} \cdot \tan \theta = \frac{1}{3}$$

$$18. \sqrt{3} - 6 \sin \theta = 4\sqrt{3}$$

$$19. \frac{\sqrt{3}}{4} = -\frac{1}{2} \cdot \cos \theta$$

$$20. -\tan \theta = -\sqrt{3}$$

Solve each equation for $0 \leq \theta < 2\pi$

$$21. \sqrt{3} = 2 \sin \theta$$

$$22. 2 + \tan \theta = 3$$

$$23. \frac{1}{5} \cdot \cos \theta = 0$$

$$24. \frac{1}{4} \cdot \tan \theta = \frac{\sqrt{3}}{4}$$

$$25. 4 = 3 + \cos \theta$$

$$26. \frac{\sqrt{2}}{3} = -\frac{2}{3} \cdot \sin \theta$$