

# 7.3

Name \_\_\_\_\_ Date \_\_\_\_\_ Period \_\_\_\_\_

## Solving Trig Equations with the Unit Circle

Solve each equation.

1.  $8 = 6n + 8 - 6$

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

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

4.  $4n - 3 = -4 + 3n$

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

5.  $-2 + \cos \theta = \frac{-4 + \sqrt{2}}{2}$

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

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

8.  $3 + \sin \theta = \frac{6 - \sqrt{3}}{2}$

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## Solving Trig Equations with the Unit Circle

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

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

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

11.  $\frac{-8 + \sqrt{3}}{2} = -4 + \sin \theta$

12.  $-2 + \tan \theta = -3$

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

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

15.  $3 = 3 + \cos \theta$

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