

9.3

Date:

Objective:

A. Warm-up: Solve each equation.

1. $2x = -13x + 30$	2. $14 = -4r - 4$
3. $x^2 - 36 = -5x$	4. $5x = x^2$

B. Solve each equation for $0 \leq \theta < 360$. (Remember: **All Students Take Calculus** *and* $\tan \theta = \frac{y}{x} = \frac{\sin \theta}{\cos \theta}$)

1. $-5 + \cos \theta = -6$	2. $4 = -8 \sin \theta$
3. $-\frac{\sqrt{3}}{3} = \frac{1}{3} \tan \theta$	4. $3 + \sin \theta = 5$
5. $4 \sin \theta = -2\sqrt{2}$	6. $\sqrt{3} = -2 \cos \theta$

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

1. $5 - 4 \tan \theta = 5$

2. $8 \cos \theta = 4\sqrt{2}$

3. $-2 - 2 \sin \theta = -3$

4. $1 - \frac{1}{2} \sin \theta = \frac{1}{2}$

5. $-\sqrt{3} + 4 \cos \theta = \sqrt{3}$

6. $\sqrt{3} = 5\sqrt{3} + 8 \sin \theta$

7. $10 - 6 \tan \theta = 4$

8. $\frac{3}{\sqrt{3}} + \tan \theta = \frac{4}{\sqrt{3}}$