5.3 Solving Trig Equations Practice Worksheet #1
Pre-calculus

Name: _____
Date: _____ Block: _____

Solve for the unknown variable on the interval $0 \le x < 2\pi$.

1. $4\cos^2 x - 3 = 0$

2. $\sqrt{2}\sin 2x = 1$

3. $3\cot^2 x - 1 = 0$

4. $\cos^3 x = \cos x$

5. $\sin x - 2\sin x \cos x = 0$

6. $2\sin^2 x - \sin x - 3 = 0$

7. $\csc^2 x - \csc x - 2 = 0$

8. $\cos^2 x = 1 - \sin x$

Solve for the unknown variable on the given interval.

9. $\sqrt{3} + \tan(2x) = 0$ on $[0,2\pi)$.

10. $\cos(\pi x) = 0.5$ on $[0,2)$.

11. $\sin\left(\dfrac{x}{2}\right) - 1 = 0$ on $[0,8\pi)$.