

HOMWORK: SOLVING TRIG EQUATIONS PART 2

NAME: _____ DAY 7 DUE: _____

Find the solutions to the trigonometric equations on the interval $[0, 2\pi)$.

1. $\cos\left(2x - \frac{\pi}{3}\right) = 1$

2. $\sec\left(\frac{3\theta}{2}\right) = -2$

3. $2\sin^2(\beta + \pi) - 1 = 0$

4. $4\cos(\pi\beta) + 3\sqrt{3} = \sqrt{3}$

$$5. \csc^2\left(\frac{x}{3}\right) = \cot\left(\frac{x}{3}\right) - 1$$

$$6. 1 - \sin(2\alpha) = \cos(2\alpha)$$

Find the general solutions to the trigonometric equations.

7. $\tan\left(\frac{\alpha}{2} + \frac{\pi}{3}\right) = 0$

8. $\sec(\pi x) = \tan(\pi x) + \cot(\pi x)$

9. $\sin(\alpha) + \sqrt{2} = \cos(\alpha)$

10. $4\sec(\pi\theta) + 6 = -2$