

Warm-up #3:
Solving Basic Trig Equations

Ex. Solve: $[0, 2\pi)$

$$\frac{5\sec^2 x - 6 = 2 + \sec^2 x}{- \sec^2 x + 6 \quad +6 \quad - \sec^2 x}$$

$$4 \frac{\sec^2 x}{4} = \frac{8}{4}$$

$$\sec^2 x = 2$$

$$\sec x = \pm \sqrt{2}$$

$$\cos x = \pm \frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \pm \frac{\sqrt{2}}{2}$$

$$x = \frac{\pi}{4}, \frac{3\pi}{4}, \frac{5\pi}{4}, \frac{7\pi}{4}$$