

$$\sin \pi(x-1) = 1$$

$$p = \frac{2\pi}{\pi} = 2$$

$$\sin \pi(x-1) = \frac{1}{2}$$

$$\pi(x-1) = \sin^{-1}\left(\frac{1}{2}\right)$$

$$\pi - \frac{\pi}{6} = \frac{5\pi}{6}$$

$$\pi(x-1) = \frac{\pi}{6}$$

$$\pi(x-1) = \frac{5\pi}{6}$$

$$x-1 = \frac{1}{6}$$

$$x-1 = \frac{5}{6}$$

$$x = \frac{7}{6}$$

$$x = \frac{11}{6}$$

$$\text{over } \mathbb{R}: \quad x = \left\{ \frac{7}{6} + 2n, \frac{11}{6} + 2n; n \in \mathbb{Z} \right\}$$

$$1 + \frac{2}{5} \sin\left(-3\theta + \frac{5\pi}{6}\right) = \frac{5 + \sqrt{3}}{5}$$

$$p = \frac{2\pi}{|1-3|} = \frac{2\pi}{3}$$

$$1 + \frac{2}{5} \sin\left(-3\theta + \frac{5\pi}{6}\right) = 1 + \frac{\sqrt{3}}{5}$$

$$\frac{2}{5} \sin\left(-3\theta + \frac{5\pi}{6}\right) = \frac{\sqrt{3}}{5}$$

$$\sin\left(-3\theta + \frac{5\pi}{6}\right) = \frac{\sqrt{3}}{2}$$

$$-3\theta + \frac{5\pi}{6} = \sin^{-1}\left(\frac{\sqrt{3}}{2}\right)$$

$$-3\theta + \frac{5\pi}{6} = \frac{\pi}{3}$$

$$-3\theta + \frac{5\pi}{6} = \frac{2\pi}{3}$$

$$-3\theta = \frac{\pi}{3} - \frac{5\pi}{6}$$

$$-3\theta = \frac{2\pi}{3} - \frac{5\pi}{6}$$

$$-3\theta = -\frac{3\pi}{6}$$

$$-3\theta = -\frac{\pi}{6}$$

$$-3\theta = -\frac{\pi}{2}$$

$$\theta = \frac{\pi}{18}$$

$$\theta = \frac{\pi}{6} \left(\frac{3\pi}{18} \right)$$

$$\theta = \left\{ \frac{\pi}{18} + \frac{2\pi}{3}n, \frac{\pi}{6} + \frac{2\pi}{3}n; n \in \mathbb{Z} \right\}$$

$$3 - 3 \sin\left(\frac{\theta}{2} + \frac{5\pi}{6}\right) = 3$$

$$P = \frac{2\pi}{\frac{1}{2}} = 4\pi$$

$$-3 \sin\left(\frac{\theta}{2} + \frac{5\pi}{6}\right) = 0$$

$$\sin\left(\frac{\theta}{2} + \frac{5\pi}{6}\right) = 0$$

$$\frac{\theta}{2} + \frac{5\pi}{6} = \sin^{-1}(0)$$

$$\frac{\theta}{2} + \frac{5\pi}{6} = 0$$

$$\frac{\theta}{2} + \frac{5\pi}{6} = \pi$$

$$\frac{\theta}{2} = -\frac{5\pi}{6}$$

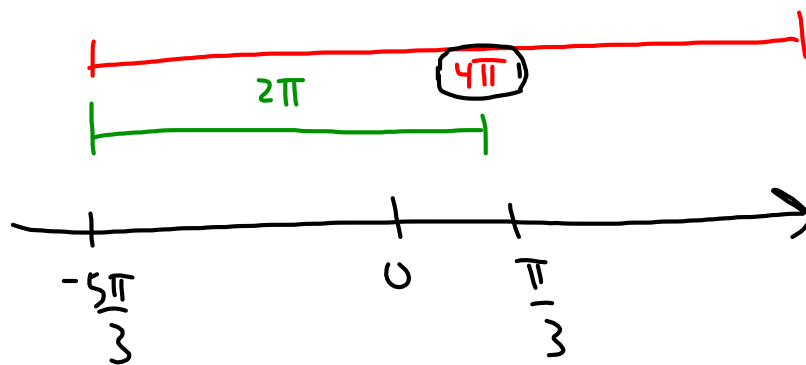
$$\frac{\theta}{2} = \pi - \frac{5\pi}{6}$$

$$\theta = -\frac{10\pi}{6} = -\frac{5\pi}{3}$$

$$\frac{\theta}{2} = \frac{\pi}{6}$$

$$\theta = \frac{\pi}{3}$$

$$\theta = \left\{ -\frac{5\pi}{3} + 4\pi n, \frac{\pi}{3} + 4\pi n; n \in \mathbb{Z} \right\}$$



$$\theta = \left\{ -\frac{5\pi}{3} + 2\pi n; n \in \mathbb{Z} \right\}$$