

$$\pm V = -A\omega \sin(\omega t + \phi)$$

$$\pm V = -4\pi \sin(\pi t + \frac{\pi}{4})$$

$$V = \pm 4\pi \sin(\pi t + \frac{\pi}{4})$$

$$1 = \pm 4\pi \sin(\pi t + \frac{\pi}{4})$$

$$\frac{1}{\pm 4\pi} = \sin(\pi t + \frac{\pi}{4})$$

$$\arcsin\left(\frac{1}{\pm 4\pi}\right) = \pi t + \frac{\pi}{4}$$

$$0.07966170016109 = \pi t + \frac{\pi}{4}$$

$$\frac{-1.491134626633807}{\pi} = t_1$$

$$-0.47464289328852 = t_1$$

$$\arcsin\left(\frac{1}{-4\pi}\right) = \pi t + \frac{\pi}{4}$$

$$0.07966170016109 = \pi t + \frac{\pi}{4}$$

$$t_2 = t_1 = -0.47464289328$$