

9. The time required is $t = T/4$, where the period is given by $T = 2\pi/\omega = 2\pi\sqrt{LC}$. Consequently,

$$t = \frac{T}{4} = \frac{2\pi\sqrt{LC}}{4} = \frac{2\pi\sqrt{(0.050\text{ H})(4.0 \times 10^{-6}\text{ F})}}{4} = 7.0 \times 10^{-4}\text{ s} .$$