

第3章 [9]

教科書の解答は分かりにくい。

$\cos\theta = \sin(\theta + \frac{\pi}{2})$ を利用すると,

$$\begin{aligned} e &= \sqrt{2} \sqrt{E} \cos(100\pi t - \frac{\pi}{6}) \\ &= \sqrt{2} \sqrt{E} \sin(100\pi t + \frac{\pi}{3}) \text{ [V]} \end{aligned}$$

$$i = \sqrt{2} I \sin(100\pi t + \frac{\pi}{4}) \text{ [A]}$$

$$\text{位相差 } \Delta\theta = \frac{\pi}{3} - \frac{\pi}{4} = \frac{\pi}{12} \text{ [rad]}$$

時間差 Δt :

$$\omega \Delta t = \Delta\theta$$

$$100\pi \Delta t = \frac{\pi}{12}$$

$$\Delta t = \frac{1}{1200} \text{ [S]}$$