

- 4.59** Find the current through the resistor in the circuit shown in Figure P4.59.

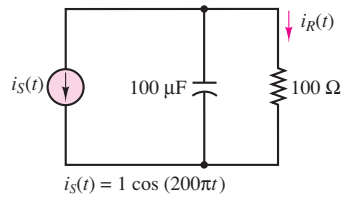


Figure P4.59

- 4.60** Find $v_{\text{out}}(t)$ for the circuit shown in Figure P4.60.

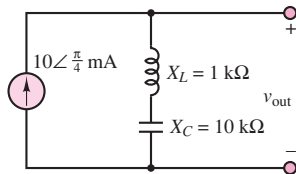


Figure P4.60

- 4.61** For the circuit shown in Figure P4.61, find the impedance Z , given $\omega = 4 \text{ rad/s}$.

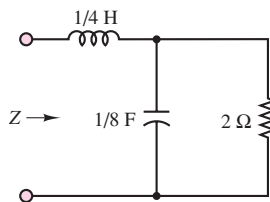


Figure P4.61

- 4.62** Find the sinusoidal steady-state outputs for each of the circuits shown in Figure P4.62.

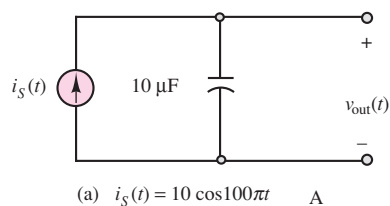
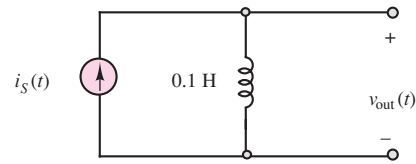
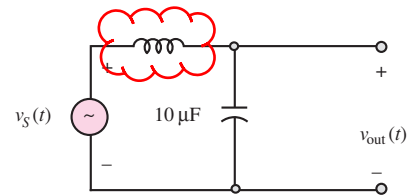


Figure P4.62 (Continued)



(b) $i_S(t) = 20 \sin 10t \text{ A}$



(c) $v_S(t) = 50 \sin 100t \text{ V}$

Figure P4.62

- 4.63** Determine the voltage across the inductor in the circuit shown in Figure P4.63.

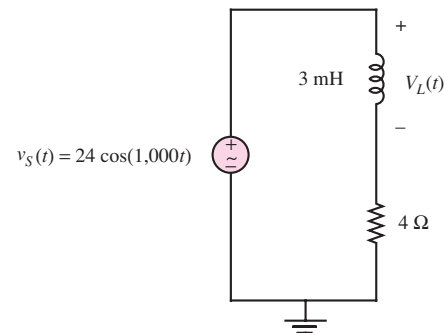


Figure P4.63

- 4.64** Determine the current through the capacitor in the circuit shown in Figure P4.64.

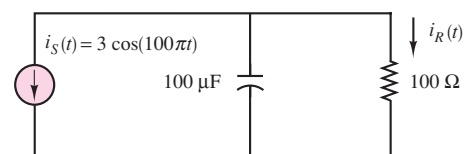


Figure P4.64

- 4.65** For the circuit shown in the Figure P4.65, find the frequency that causes the equivalent impedance to appear purely resistive.