

ECS 303 - HW11

Dr. Prapun Suksompong

Chapter 10, Problem 7.

Use nodal analysis to find V in the circuit of Fig. 10.56

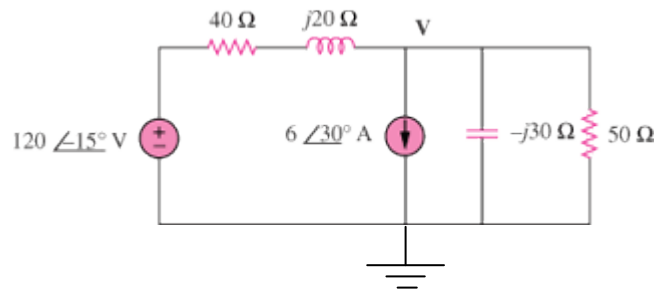


Figure 10.56

Chapter 10, Problem 16.

Use nodal analysis to find V_x in the circuit shown in Fig. 10.65.

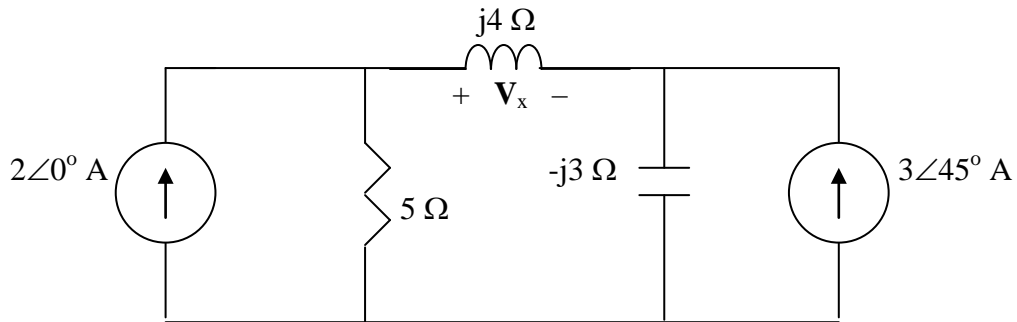


Figure 10.65 For Prob. 10.16.

Chapter 10, Problem 20.

Refer to Fig. 10.69. If $v_s(t) = V_m \sin \omega t$ and $v_o(t) = A \sin(\omega t + \phi)$, derive the expressions for A and ϕ .

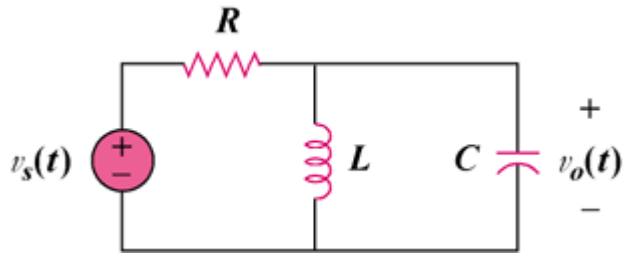


Figure 10.69

Chapter 10, Problem 25.

Solve for i_o in Fig. 10.73 using mesh analysis.

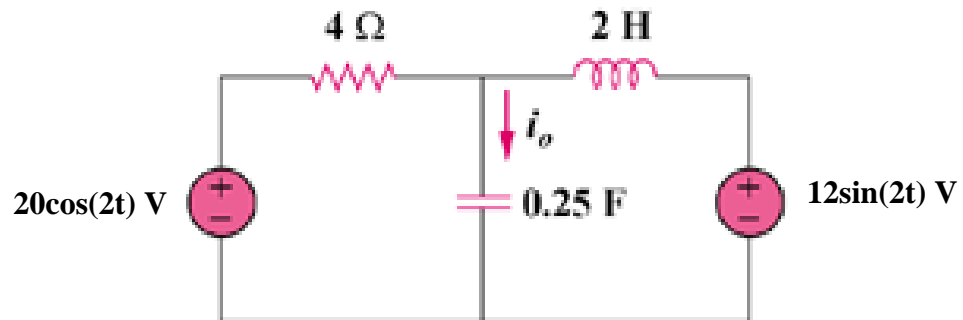


Figure 10.73
For Prob. 10.25.

Chapter 10, Problem 28.

In the circuit of Fig. 10.76, determine the mesh currents i_1 and i_2 . Let $v_1 = 10 \cos 4t$ V and $v_2 = 20 \cos(4t - 30^\circ)$ V.

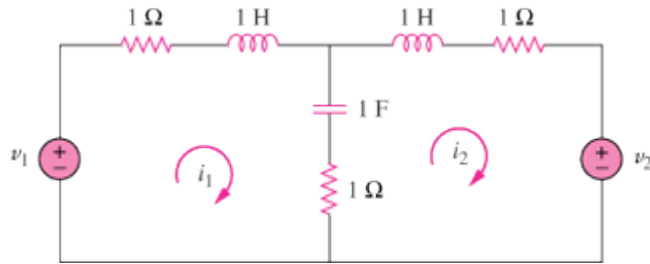


Figure 10.76