*5.18 For the circuit shown in Figure 5.57, solve for the Thevenin equivalent circuit looking into terminals A and B.

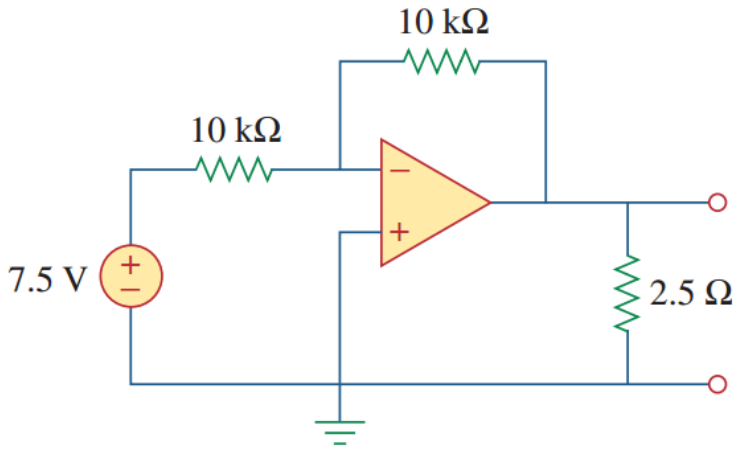

Figure 5.57
For Prob. 5.18.

5.28 Find i_o in the op amp circuit of Fig. 5.66.

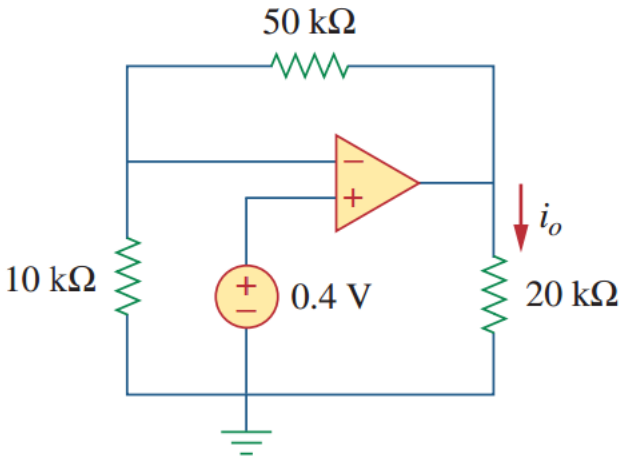

Figure 5.66
For Prob. 5.28.

5.34 Given the op amp circuit shown in Fig. 5.72, express v_o in terms of v_1 and v_2.

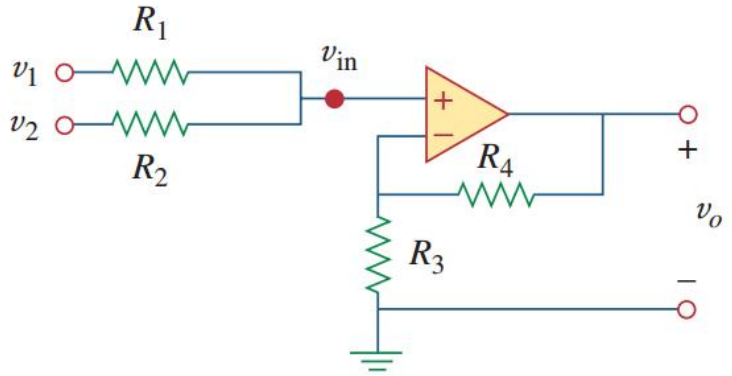

Figure 5.72
For Prob. 5.34.

5.37 Determine the output of the summing amplifier in Fig. 5.74.

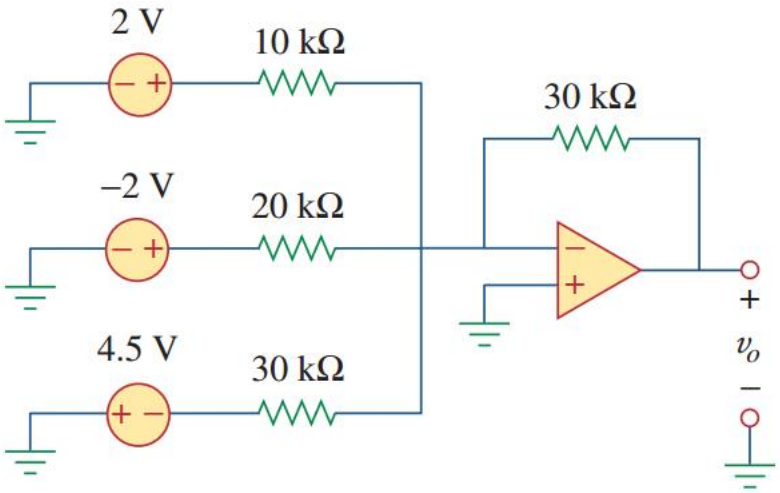

Figure 5.74
For Prob. 5.37.

5.46 Using only two op amps, design a circuit to solve

$$-v_{\text{out}} = \frac{v_1 - v_2}{3} + \frac{v_3}{2}$$

5.61 Determine v_o in the circuit of Fig. 5.88.

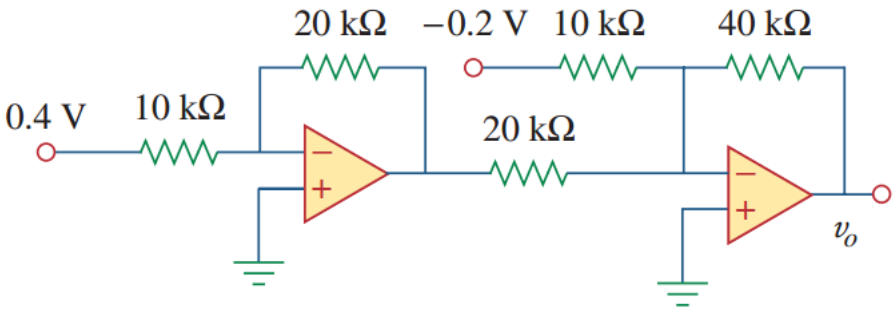

Figure 5.88
For Prob. 5.61.

6.12 A voltage of $30e^{-2000t}$ V appears across a parallel combination of a 100-mF capacitor and a 12-Ω resistor. Calculate the power absorbed by the parallel combination.

6.42 If the voltage waveform in Fig. 6.67 is applied across the terminals of a 5-H inductor, calculate the current through the inductor. Assume $i(0) = -1$ A.

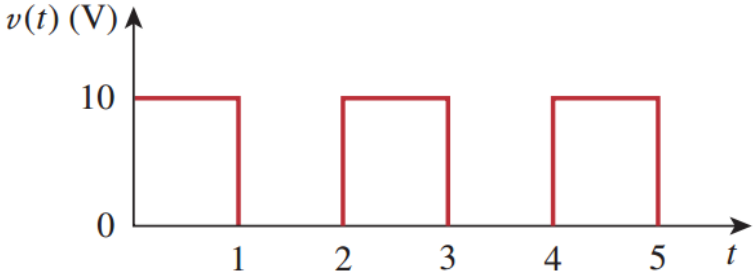

Figure 6.67
For Prob. 6.42.

6.66 The current $i(t)$ through a 20-mH inductor is equal, in magnitude, to the voltage across it for all values of time. If $i(0) = 2$ A, find $i(t)$.