

Chapter 5, Solution 37.

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

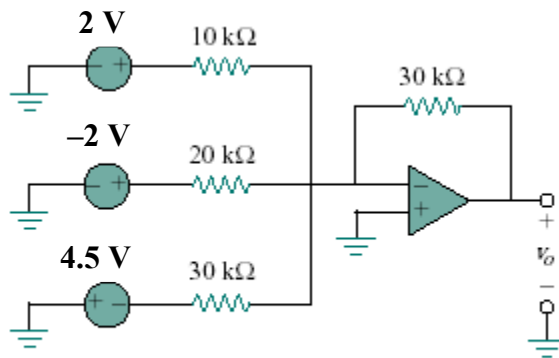


Figure 5.74
For Prob. 5.37.

Solutio

$$\begin{aligned} v_o &= - \left[\frac{R_f}{R_1} v_1 + \frac{R_f}{R_2} v_2 + \frac{R_f}{R_3} v_3 \right] \\ &= - \left[\frac{30}{10} (2) + \frac{30}{20} (-2) + \frac{30}{30} (-4.5) \right] \\ v_o &= \mathbf{1.5 \text{ V}}. \end{aligned}$$