Chapter 5, Solution 61.

Determine v_o in the circuit of Fig. 5.88.

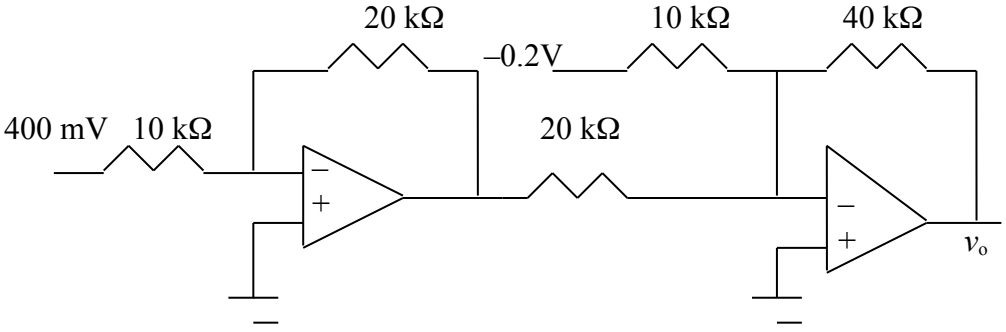

Figure 5.88
For Prob. 5.61.

Solution

The first op amp is an inverter. If v_1 is the output of the first op amp,

$$V_1 = -(200/100)(0.4) = -0.8 \text{ V}$$

The second op amp is a summer

$$V_o = -(40/10)(-0.2) - (40/20)(-0.8) = 0.8 + 1.6$$

$$= \mathbf{2.4\ V}.$$