

Chapter 5, Solution 68.

If $R_q = \infty$, the first stage is an inverter.

$$V_a = -\frac{15}{5}(15) = -45\text{ mV}$$

when V_a is the output of the first op amp.

The second stage is a noninverting amplifier.

$$v_o = \left(1 + \frac{6}{2}\right)v_a = (1 + 3)(-45) = -180\text{ mV}.$$