

Chapter 5, Solution 59.

The first stage is a noninverting amplifier. If v_1 is the output of the first op amp,

$$v_1 = (1 + 2R/R)v_s = 3v_s$$

The second stage is an inverting amplifier

$$v_o = -(4R/R)v_1 = -4v_1 = -4(3v_s) = -12v_s$$

$$v_o/v_s = \mathbf{-12}.$$