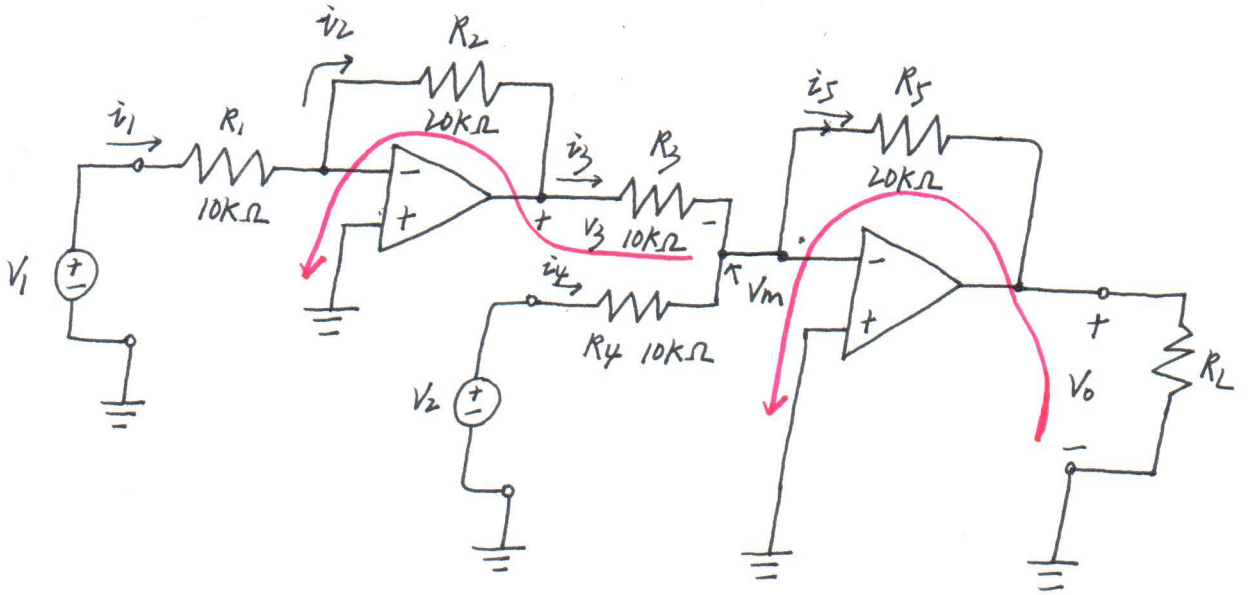
4.3



First, we verify that negative feedback is present

According to the summing-Point constraint:

$$i_1 = \frac{V_1}{R_1} = \frac{V_1}{10K\Omega}$$

$$i_2 = i_1 = \frac{V_1}{10K\Omega}$$

$$V_m = 0$$

KVL:

$$\therefore \quad V_3 + R_2 i_2 = 0 \Rightarrow V_3 = -2V_1$$

KCL:

$$i_5 = i_3 + i_4 = \frac{V_3}{R_3} + \frac{V_2}{R_4} = \frac{-2V_1}{10K\Omega} + \frac{V_2}{10K\Omega}$$

KVL:

$$V_o + R_5 i_5 = 0 \Rightarrow V_o = -\left(\frac{-2V_1}{10K\Omega} + \frac{V_2}{10K\Omega}\right) \times 20K\Omega = 4V_1 - 2V_2$$