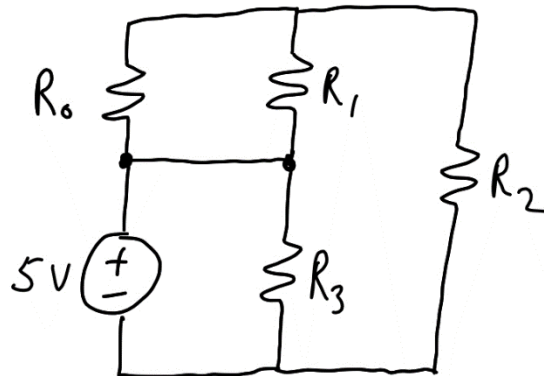
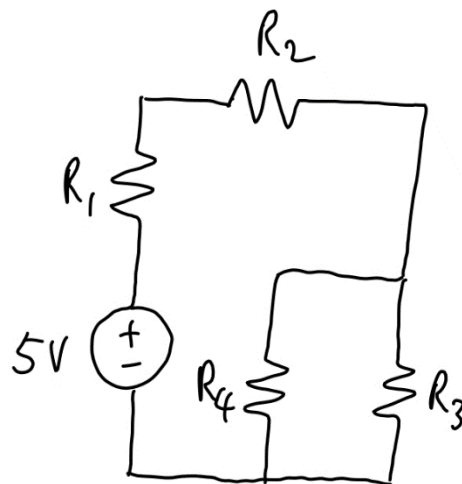


Some Extra Questions for Practicing Node Voltage Analysis Method

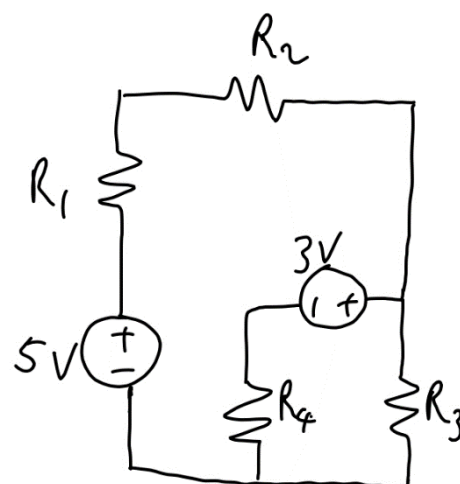
1)



2)

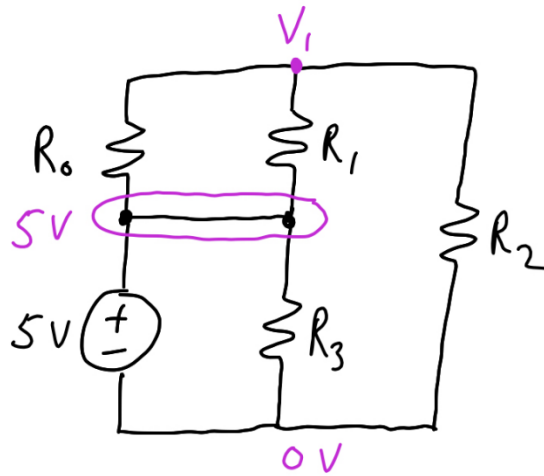


3)



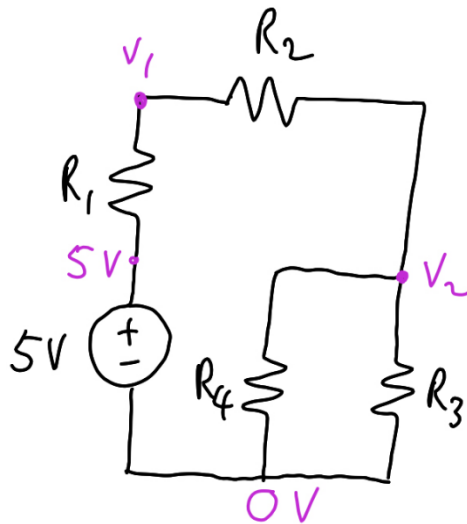
Solutions:

1)



$$\frac{V_1 - 5}{R_0} + \frac{V_1 - 5}{R_1} + \frac{V_1 - 0}{R_2} = 0$$

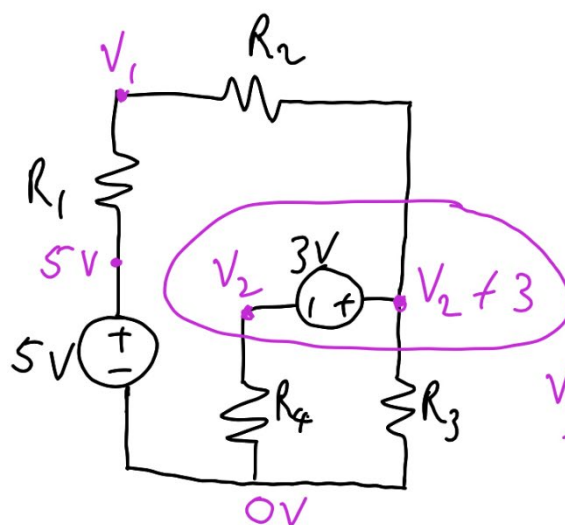
2)



$$\frac{V_2 - V_1}{R_2} + \frac{V_2}{R_3} + \frac{V_2}{R_4} = 0$$

$$\frac{V_1 - V_2}{R_2} + \frac{V_1 - 5}{R_1} = 0$$

3)



$$\frac{V_1 - 5}{R_1} + \frac{V_1 - (V_2 + 3)}{R_2} = 0$$

$$\frac{V_2 + 3 - V_1}{R_2} + \frac{V_2}{R_4} + \frac{V_2 + 3}{R_3} = 0$$