

HOMEWORK-I

1. For the circuit given in Figure 1, obtain the equations to analysis the circuit using (a) Chord (Line) current method (b) Branch Voltage method ($V_6 = \alpha V_7$).
2. For the circuit given in Figure 2, obtain the equation to analysis the circuit using (a) Chord (Line) current method (b) Branch Voltage method.

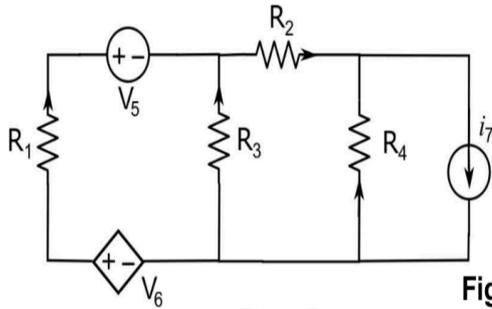


Figure 1

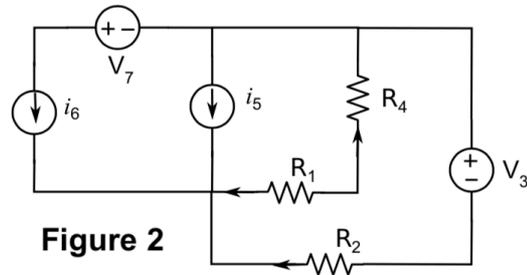


Figure 2

P 6.4-5 \oplus The outputs of the circuit shown in Figure P 6.4-5 are v_o and i_o . The inputs are v_1 and v_2 . Express the outputs as functions of the inputs and the resistor resistances.

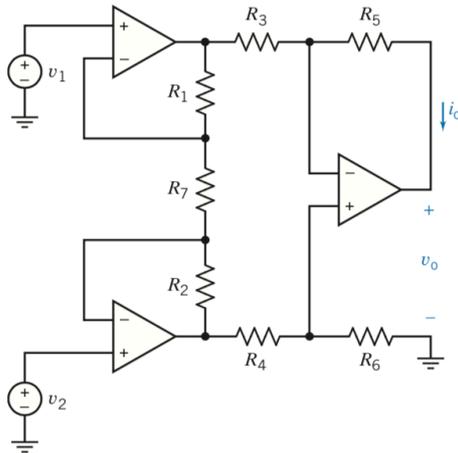


Figure P 6.4-5

P 6.3-14 \oplus Determine the node voltages at nodes a, b, c, and d of the circuit shown in Figure P 6.3-14.

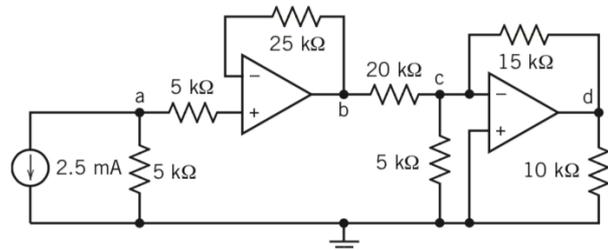


Figure P 6.3-14

P 6.3-8 Determine the current i_o for the circuit shown in Figure P 6.3-8.

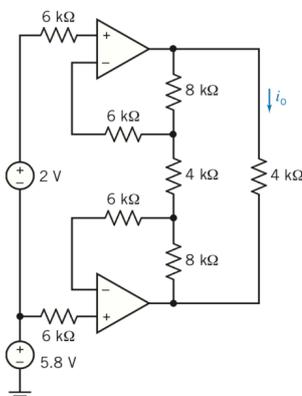


Figure P 6.3-8