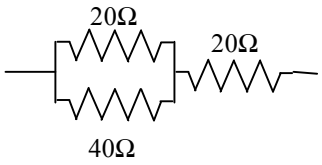
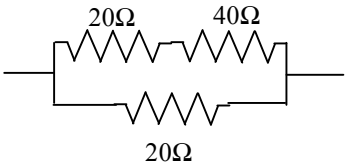
Phys 321 HW-0 Resistance and Circuits

1- Determine the net resistance of these networks.



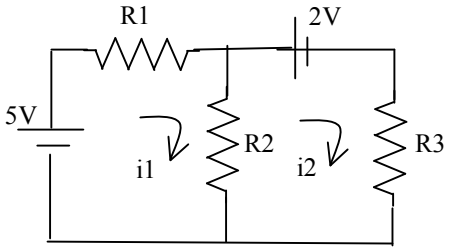
Rtot = _____ Ω



Rtot = _____ Ω

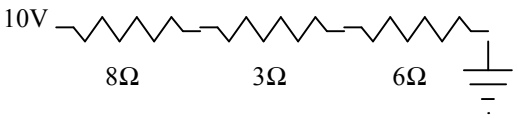
What is the net current through resistor R2?

i1= _____ i2 = _____ I_{R2} = _____



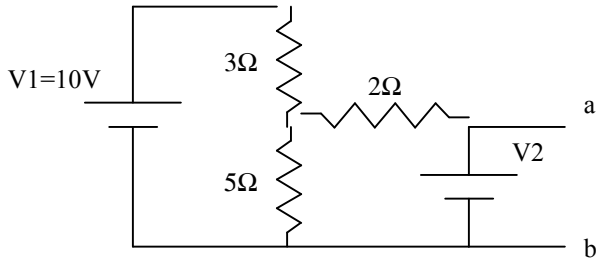
Then $I_{R1} = i1$ $I_{R2} = i1-i2$ $I_{R3} = i3$

3- What is the voltage drop across the 8Ω resistor?



V_8 = _____ V

4- Use Thevenin's Theorem to determine the effective voltage and resistance of the circuit between points a b with V2 removed.



5- Use Thevenin's Theorem to determine the effective voltage and resistance of the circuit between points at a b with R3 removed. R1=100Ω, R2=1000Ω, R3=99Ω, R4=1000Ω, R5=10Ω.