



**Arab Academy for Science & Technology
and Maritime Transport – Cairo Branch
College of Engineering & technology
Electronics & Communication Engineering Department**



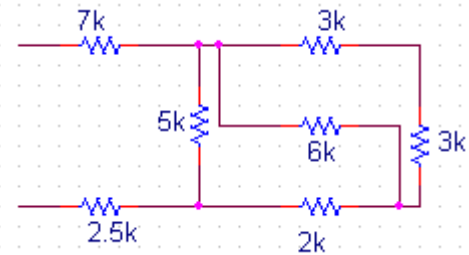
Fundamentals of Electricity and Electronics

EC134

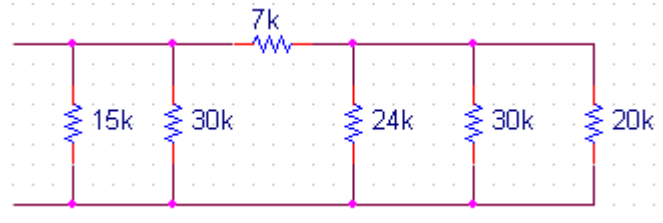
Problem Set No.1



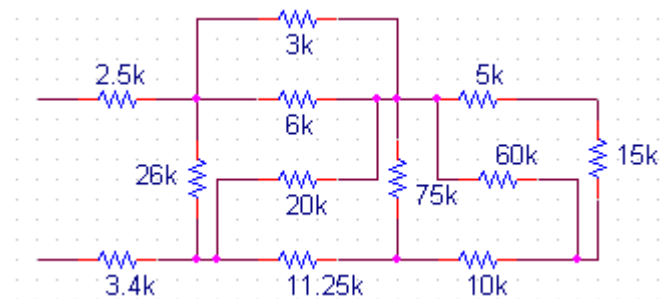
1- find the equivalent resistance.



2-Find the equivalent resistance.



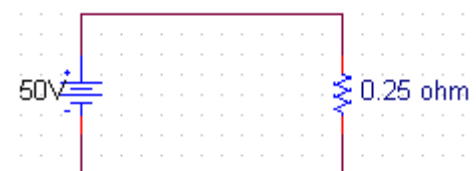
3-find the equivalent resistance.



4 a) find the voltage drop on the resistor
b) determine the power dissipated in the resistor



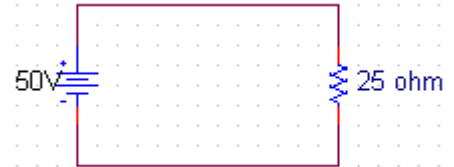
5 a) Calculate the current passing through the resistor
b) determine the power dissipated in the resistor



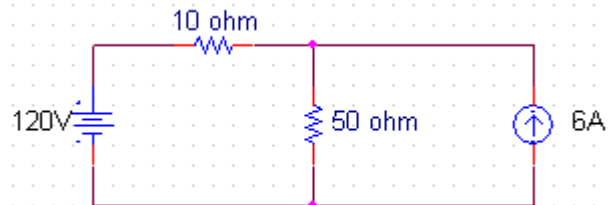
- 6 a) Calculate the voltage drop on the resistor
b) determine the power dissipated in the resistor



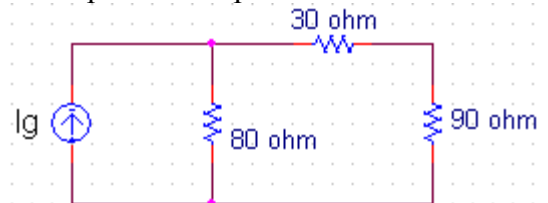
- 7 a) Calculate the current passing through the resistor
b) determine the power dissipated in the resistor



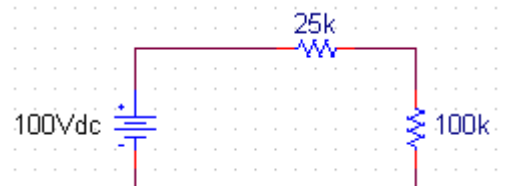
- 8 a) use Kirchoff laws to find the current on the 10Ω resistance
b) verify that the total power delivered is equal to the total power dissipated



- 9- given the current passing through 30 Ω equals 1.6A.
a) find I_g , the voltage drop on 90Ω and the current passing through 80Ω
b) verify that the total power delivered by the source = to the power dissipated



- 10- find the voltage drop on the 100kΩ resistor.



- 11- find the current passing through the 4Ω resistance.

