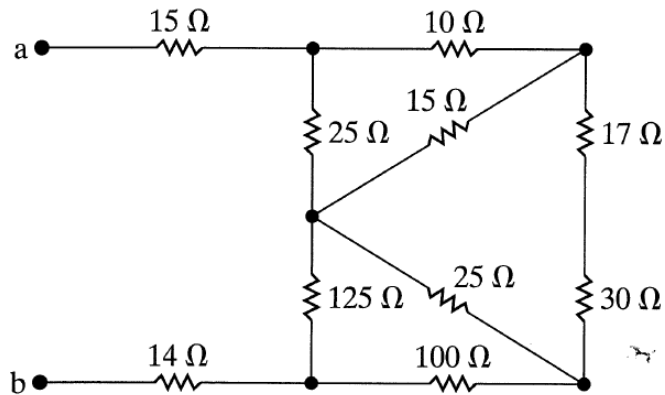
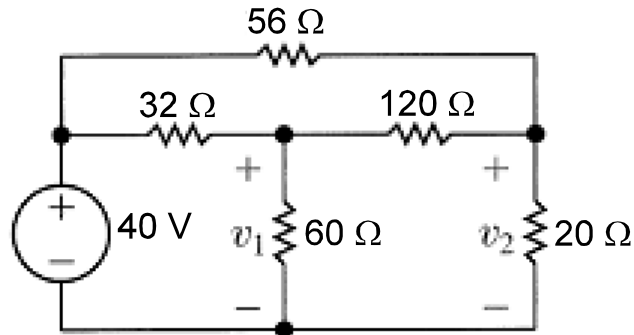


**Homework Set #9**  
**DUE Tuesday, March 28, 2017**

1. Determine the resistance  $R_{ab}$  in the following circuit:



2. a) Use  $Y - \Delta$  Transformations (or  $\Delta - Y$ ) to obtain  $v_1$  &  $v_2$  in the following circuit.  
 b) Check your result using Nodal Analysis.



*(HINT: Begin by transforming the  $\Delta$ -connected  $60\Omega - 120\Omega - 20\Omega$  resistors into  $Y$  and then reduce the circuit to a single resistor and get the source current.)*

3. Determine the resistance  $R_{ab}$  in the following circuit:

