

HW 2

posted Monday 2/6/2012

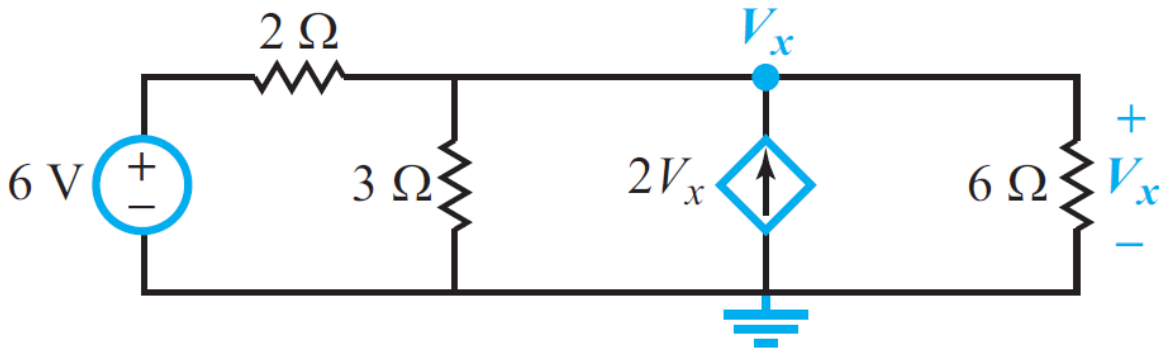
due Monday 2/13/2012

EE40

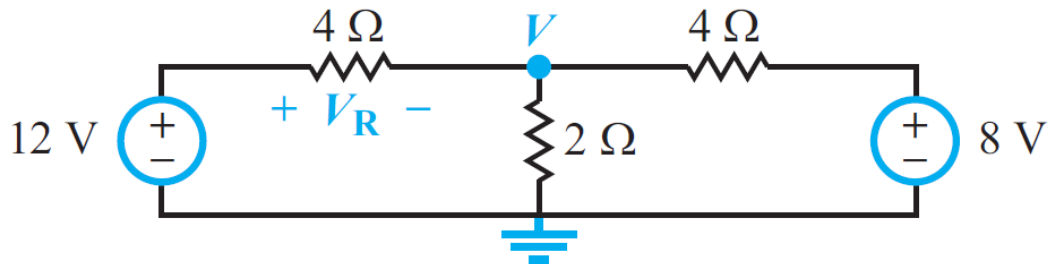
Maharbiz

Spring 2012

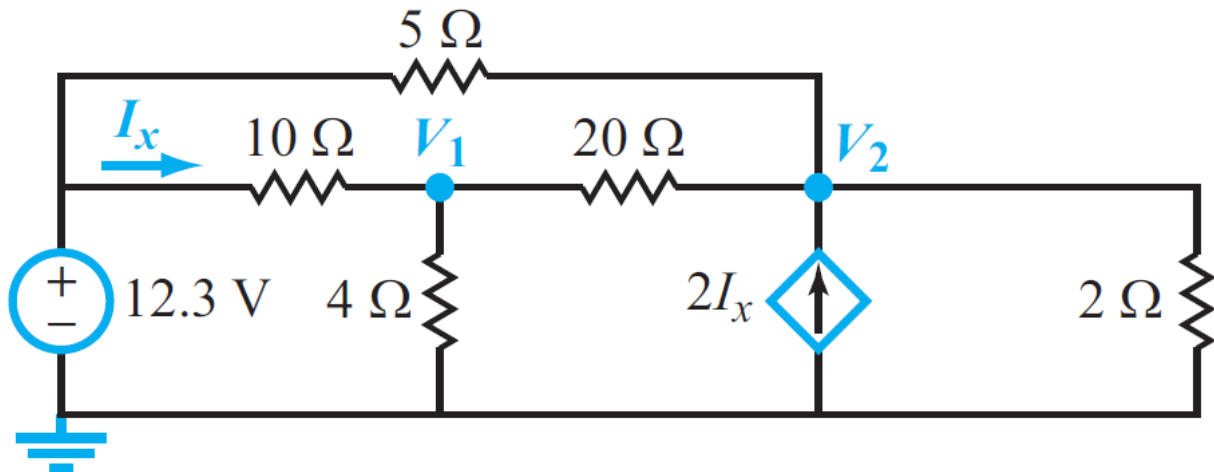
1. The circuit below contains a dependent current source. Determine the voltage V_x .



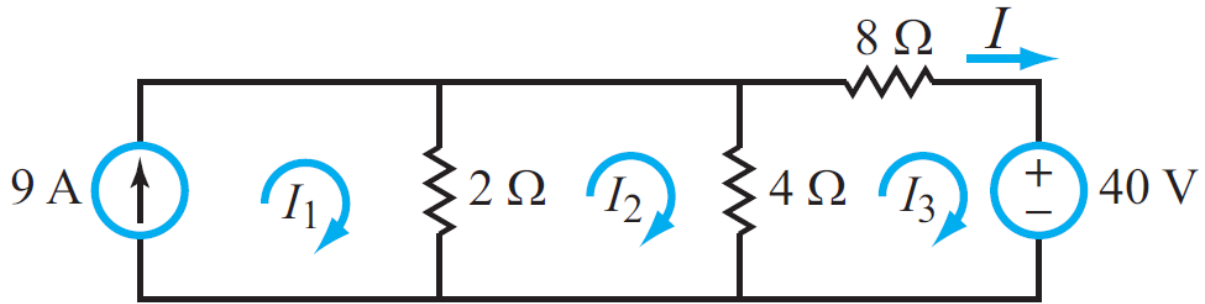
2. Apply nodal analysis to determine the voltage V_R in the circuit below.



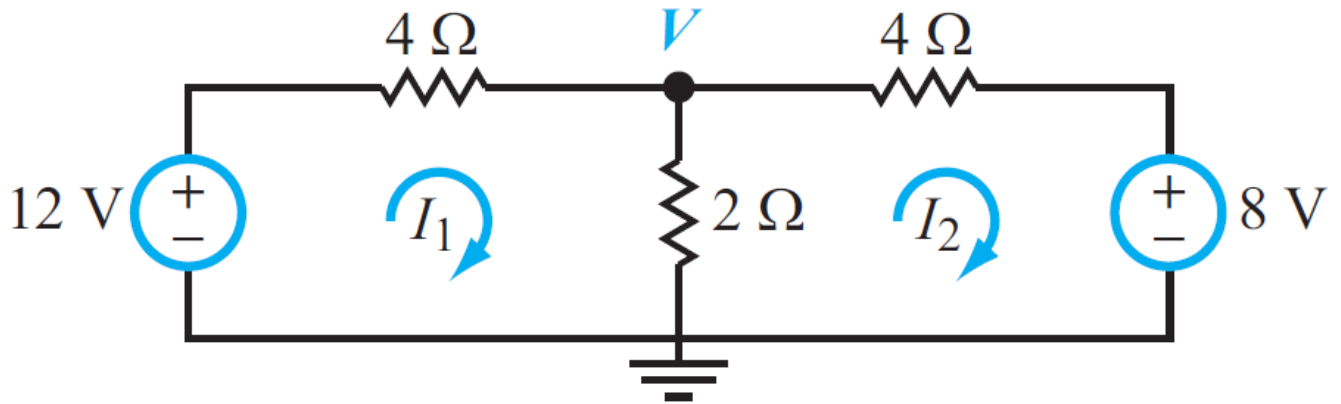
3. The magnitude of the dependent current source in the circuit below depends on the current I_x flowing through the $10\text{-}\Omega$ resistor. Determine I_x .



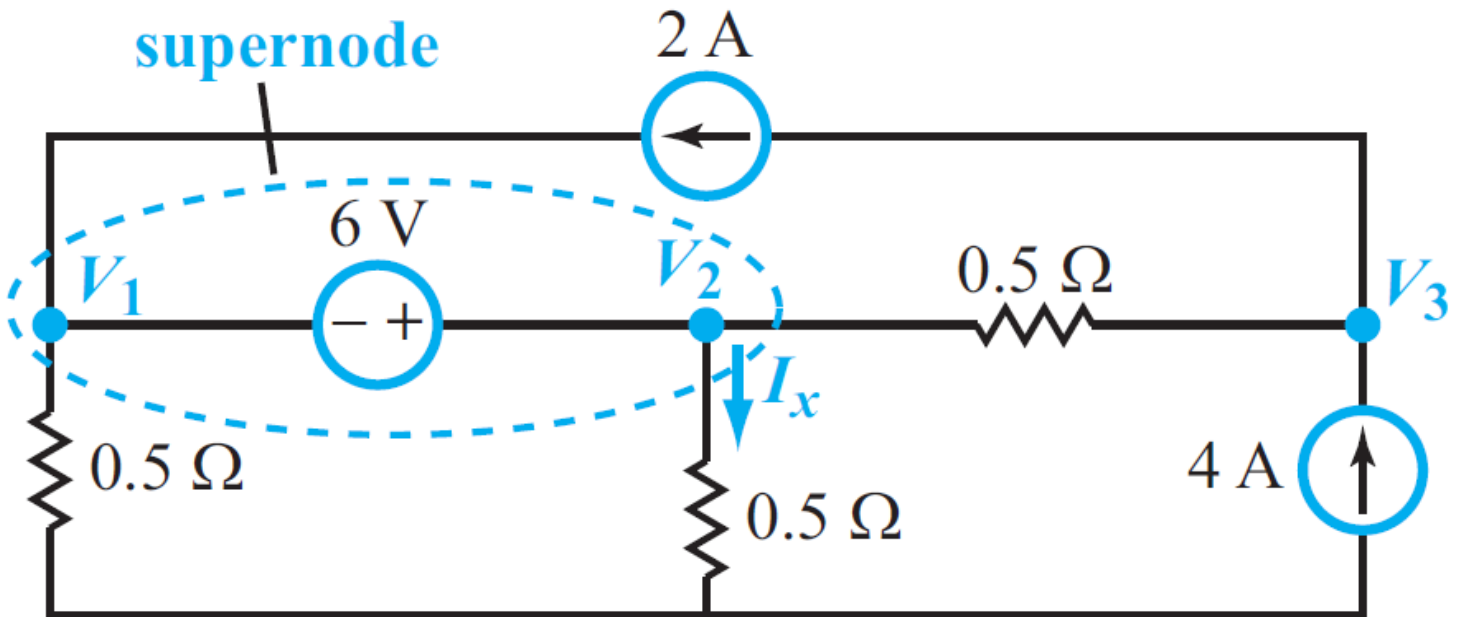
4. Use mesh analysis to determine the amount of power supplied by the voltage source in the circuit below.



5. Determine V in the circuit below using mesh analysis.



6. Use the supernode concept to find the current I_x in the circuit below.



7. Determine V_x in the circuit below.

