Universidad de Puerto Rico
Recinto Universitario de Mayagüez
Departamento de Ingeniería Eléctrica y Computadoras

INEL 4075 Asignacion #3: Semana de lunes 4 de febrero de 2013.

Nombre:_____ Sección:_____

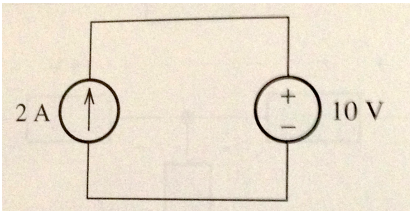

Figure 1: Circuit for Problem 1.

1. Consider the circuit shown in Figure 1. Find the power for the voltage source and for the current source. Which source is absorbing power?

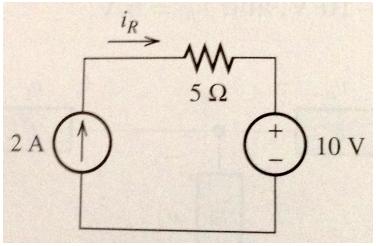

Figure 2: Circuit for Problem 2.

2. Consider the circuit shown in Figure 2. Find the current i_R flowing through the resistor. Find the power for each element in the circuit. Which elements are absorbing power?

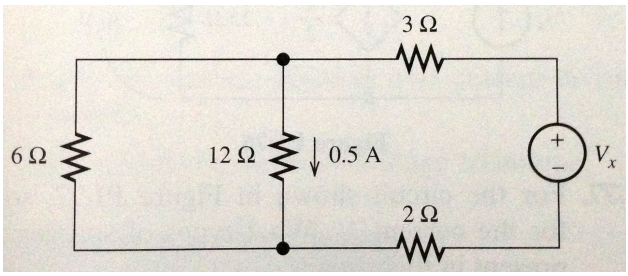

Figure 3: Circuit for Problem 3.

3. Consider the circuit shown in Figure 3. **a.** Which elements are in series? **b.** Which elements are in parallel? c. Apply Ohm's and Kirchhoff's laws to solve for V_X.

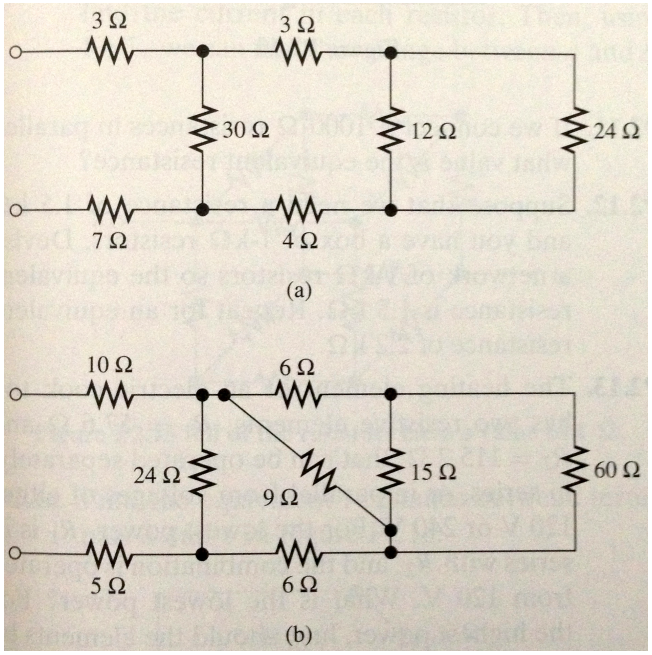

Figure 4: Circuits for Problem 4.

4. Reduce each of the networks shown in Figure 4 to a single equivalent resistance by combining resistances in series and parallel.