

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

INEL 4075 Asignacion #2:

Semana de lunes 25 de agosto de 2014.

Nombre: _____

Sección: _____

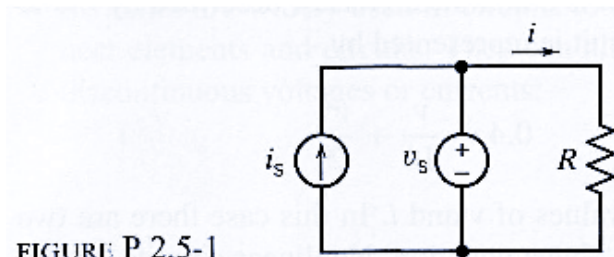


FIGURE P 2.5-1

P2.5-1 A current source and a voltage source are connected in parallel with a resistor as shown in Figure P2.5-1. All of the elements connected in parallel have the same voltage, v_s in this circuit. Suppose that $v_s = 15$ V, $i_s = 3$ A, and $R = 5$ Ω .
(a) Calculate the current i in the resistor and the power absorbed by the resistor.
(b) Change the current source current to $i_s = 5$ A and recalculate the current, i , in the resistor and the power absorbed by the resistor.

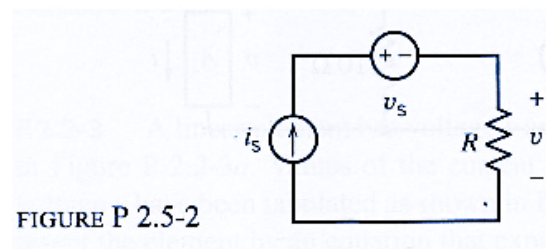
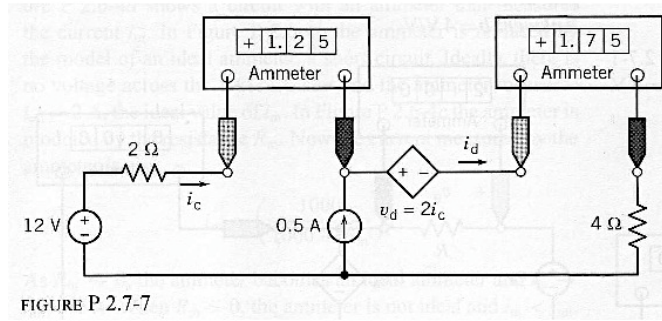


FIGURE P 2.5-2

P2.5-2 A current source and a voltage source are connected in series with a resistor as shown in Figure P 2.5-2. All of the elements connected in series have the same current, i_s , in this circuit. Suppose that $v_s = 10$ V, $i_s = 2$ A, and $R = 5$ Ω . (a) Calculate the voltage v across the resistor and the power absorbed by the resistor.
(b) Change the voltage source voltage to $v_s = 5$ V and recalculate the voltage, v , across the resistor and the power absorbed by the resistor.



P 2.7-7 Find the power absorbed by the CCVS in Figure P 2.7-7.