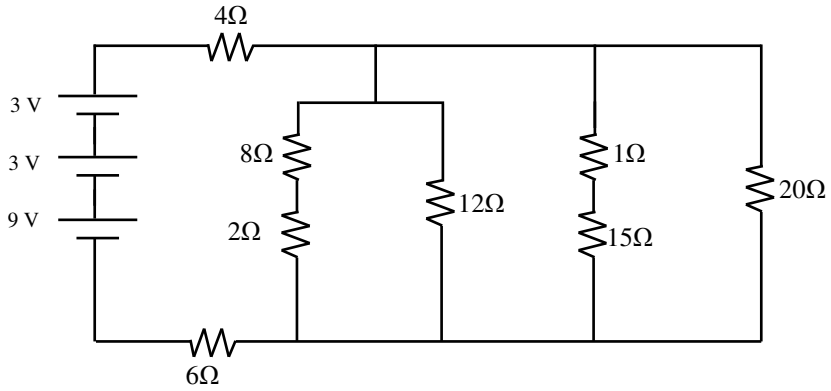
Due Wed, Apr 30, 2008

# 2008 PreAP Circuits 4

1. Using V = IR and P = VI, find the resistance of a 40W light bulb when connected to 120 V power supply.

2. Use the following circuit to answer the following questions.
   A. Calculate the equivalent resistance of the circuit. HINTS: If resistors are in series, reduce them to one resistor using $R_T = R_1 + R_2 \ldots$ . If resistors are in parallel use : $\frac{1}{R_{total}} = \frac{}{R_1} + \frac{}{R_2} + \frac{}{R_3} \ldots$ You will have to do this multiple times. Redrawing will be essential.




   B. Determine how much current is flowing thru the 8Ω resistor.
   HINT: Work backwards.