Review: Electric Current **Name _____**

1. Fill in the table:

	symbol	unit	= (use J, C, s)
current			
power			
voltage			
work			
resistance			XXXXXXXXXX

2. What is the resistance of an electric frying pan that draws 14a when connected to a 110v circuit?

   b. What is the power of the frying pan?

3. A 1500w appliance runs for 6.2h. What is its cost at 9.5 cents/kw hr?

4. Give 3 examples of electric charge pumps. What do they do to charges? What happens when the charges go through loads in the circuit and return to the pump?

5. Draw symbols for these parts of a circuit:
   open switch resistor load

   fuse battery (label + and – poles)

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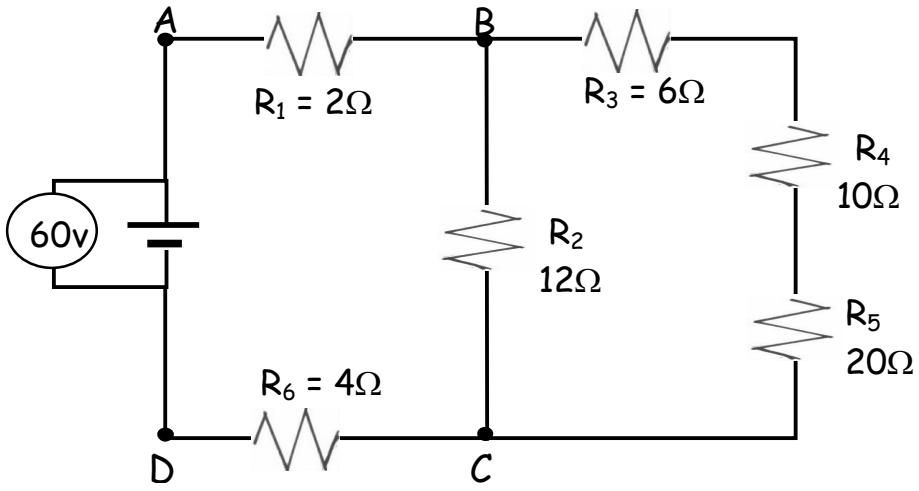

1. R_3, R_4, and R_5 are connected in _____ with each other and in _____ with R_2.
2. Calculate the resistance from:
   B to C (outside branch) _____ B to C (both branches) _____
   B to C (inside branch) _____
   The resistance from A to D = _____ (This is the _____ R of the circuit.)

3. From R_T and V_T, calculate total current in the circuit: I_T = _____
   On the diagram show where you would put an ammeter to measure total current.
   Which two resistors have current readings equal to I_T? _____ and _____
   On the diagram, label these currents.

4. Use Ohm's Law to calculate: V_1 = _____ and V_6 = _____
   Because the charge pump furnishes a V_T = _____, and R_1 and R_6 use up _____v together, the voltage drop from point B to C = _____.
   V_2 = _____ and the V of the outside branch = _____, since the two branches are connected in _____, and voltage (adds up, is the same) in both branches. Since R_3, R_4, and R_5 are connected in _____, their voltage drops must add up to _____v.

5. From V_2 and R_2, calculate: I_2 = _____ Then how much current runs through the outside branch? _____ How do you know? _____
   Since all the resistors in this branch are in series, the current running through them (adds up, stays the same). Label each with their current.

6. Calculate: V_3 = _____ V_4 = _____ V_5 = _____
   $V_3 + V_4 + V_5$ = _____ How does this compare to V_2? _____