Name: _____

Period:_____

HW Unit 9:6—Types of Circuits
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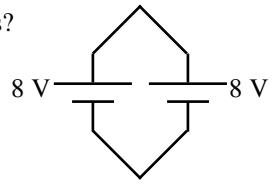
A-day: Due Fri., 3/30 (Assig: 3/28)
B-day: Due Wed., 4/4 (Assig: 3/29)

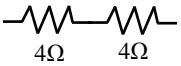
1. Series or Parallel?
   A) ___ If one bulb is unscrewed, they both go off.
   B) ___ Both devices have the same current.
   C) ___ If one light bulb is unscrewed, the other stays on.
   D) ___ Both devices have the same voltage across them.
   E) ___ Has more than one path.
   F) ____ Has only one path for the electricity.
   G) ___ Has a place where the current splits and joins again.\

2. Are these batteries in parallel or series?

3. What is the total voltage?



4. Parallel or series?



5. What is the total resistance?

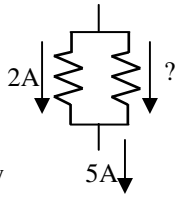
6. Use the choices at the right to tell someone how to make a series circuit: (can use them more than once).

Battery; light bulb; wire; split; join; two bulbs next to each other.

7. Use the same words to tell someone how to make a parallel circuit.

HW Unit 9:6

8. How much current is in the second resistor shown?

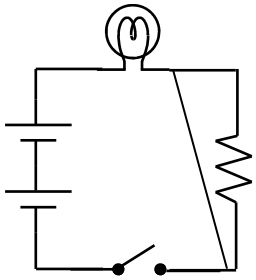


9. What do we call a place where electricity splits in a circuit?

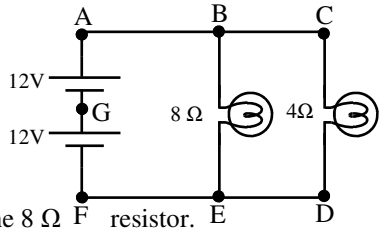
10. Will the light bulb light up?

11. Why or why not?

12. What happens if you put a wire from the positive to the negative end of a battery?



13. Use the diagram to answer:
    A) Total voltage:
    B) Parallel or series?
    C) Which light bulb will have more current flowing thru it?
    D) What is V from F to D?
    E) V_{BE} =
    F) Find the current going thru the 8 Ω resistor.



G) Find the current going thru the 4 Ω resistor.

H) What is the I_T?

I) BONUS: Find R_T: