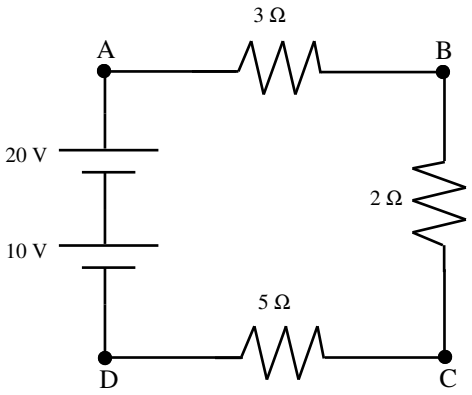
A-day: Due Mon., May 5 (Assigned TAKS week)
B-day: Due Tues., May 6 (Assigned TAKS week)

2008 Electricity 11 (<u>more</u> Review)

1. After working the circuit at the right, answer the following questions.

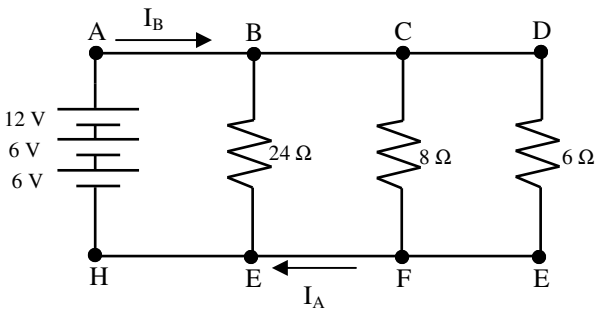


   A) $I_{\text{thru } 2\Omega} =$
   B) $I_{\text{thru batteries}} =$
   C) $V_{\text{used by } 5\Omega} =$
   D) $P_{\text{used by } 3\Omega} =$
   E) $V_{\text{at C}} =$
   F) $P_{\text{total}} =$
   G) If the 5Ω resistor is increased to a 10Ω resistor, what happens to the current?
   H) Which resistor uses the most voltage?
   I) Which resistor uses the most power?
   J) If they were light bulbs, which one would be the dimmest?

   K) In what situation could there be 0A flowing thru point D?

   L) The second battery is then replaced by a 9v battery (*so that there is less total voltage*). Which resistor would have the most current flowing thru it?

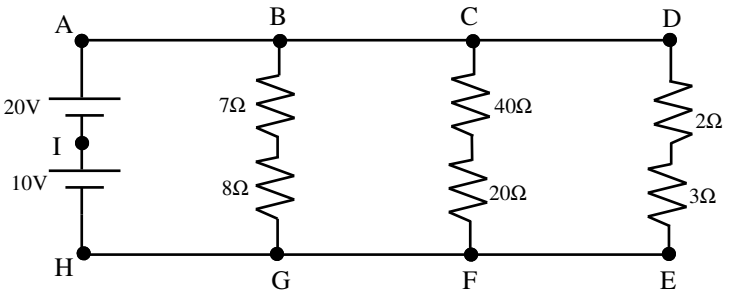
2. After working the circuit at the right, answer the following questions.



   A) $I_{\text{thru } 6\Omega} =$
   B) $I_{\text{thru batteries}} =$
   C) $V_{\text{used by } 24\Omega} =$
   D) $P_{\text{used by } 8\Omega} =$
   E) $V_{\text{at C}} =$
   F) $I_A =$
   G) $I_B =$
   H) $P_{\text{total}} =$
   I) Which resistor uses the most voltage?
   J) Which resistor allows the most current?
   K) Which resistor uses the most power?
   L) If they were light bulbs, which one would be the brightest?

   M) The 6 Ω is then replaced by a 12Ω resistor.
      i) The current flowing thru the 12Ω would be more or less than when it was a 6Ω?
      ii) The current flowing thru the 8Ω would increase or decrease?
      iii) The total current provided by the batteries would increase or decrease?
      iv) The voltage used by the new 12Ω would increase or decrease?

3. Answer the following questions about the circuit below.



   A) The 40Ω and 20Ω are in parallel or series which each other?
   B) $I_{\text{from F to G}} =$
   C) $I_{\text{Total}} =$
   D) $I_{\text{from C to D}} =$
   E) $V_{\text{from B to D}} =$
   F) $V_{\text{at F}} =$
   G) $V_{\text{used by the 2 } \Omega} =$
   H) $P_{\text{used by the 8 } \Omega} =$
   I) If the 20Ω resistor is changed to 10Ω,
      i) how does the current from B to G change?

      ii) how does the total current change?

Some simple magnetic questions (our next unit).

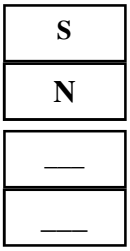
4. Magnets have two sides called:

5. Instead of positive and negative they are called: _____ and _____.

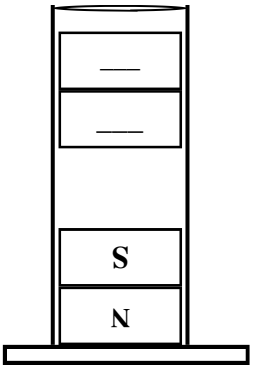
6. A magnet will pick up any piece of metal. True or False?

7. As a magnet gets closer to another magnet, does the magnetic force increase or decrease?

8. In the diagram below, two magnets are attracted to each other.
Label the blanks.

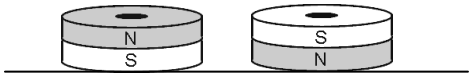


9. In the diagram at the right, two magnets are placed inside a graduated cylinder. The upper magnet is suspended in the air because it is being repelled by the lower magnet. Label the blanks.



10. Two magnets are placed on a table next to each other.

A. Attract or repel?



B. Attract or repel?