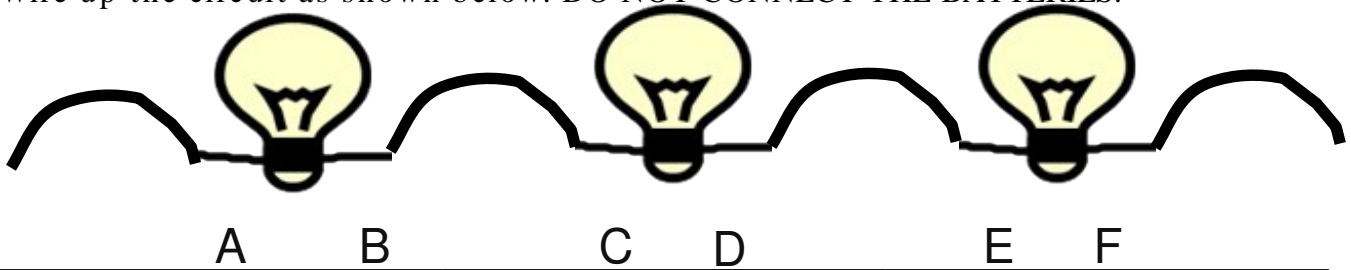


Name \_\_\_\_\_  
 Series Circuit Lab

Sci# \_\_\_\_\_

**Part I:** Measuring Resistance of a Circuit. Turn the multimeter to 200 Ohms. Wire up the circuit as shown below. DO NOT CONNECT THE BATTERIES!



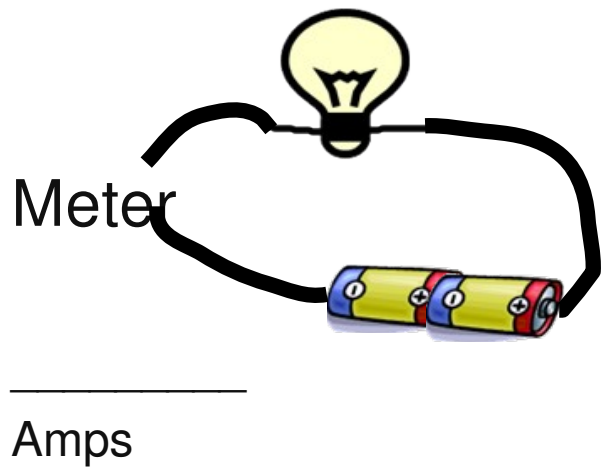
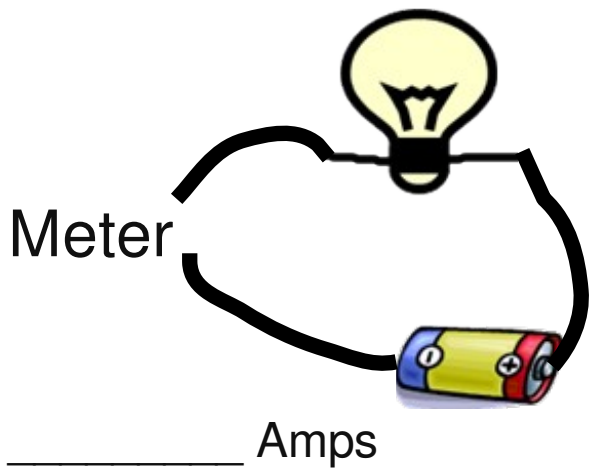
Points to measure	# of light bulbs crossed when going from one point to another	Amount of resistance, measured with multimeter (Ohms)
From A to B		
From C to D		
From E to F		
From B to C		
From A to D		
From C to F		
From A to F		

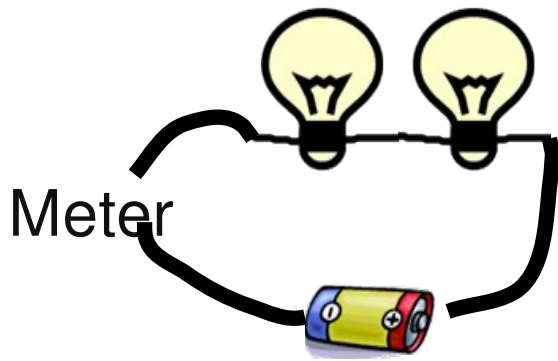
How much resistance does a light bulb have?

How much resistance was there when no light bulbs were crossed?

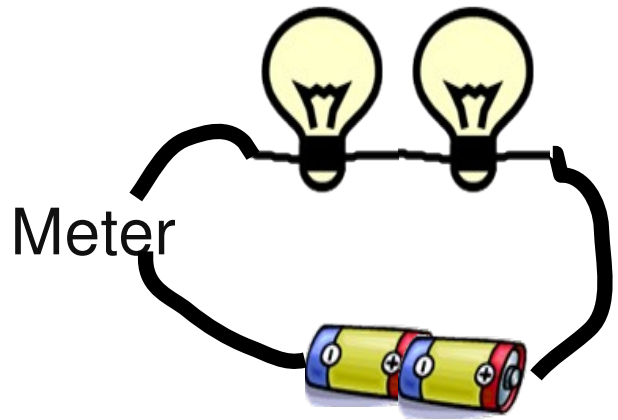
**Part II:** Measuring amps in series.

Turn the multimeter to 200m Amps. Wire up the series circuits exactly as shown and record the amount of amps flowing through each circuit.

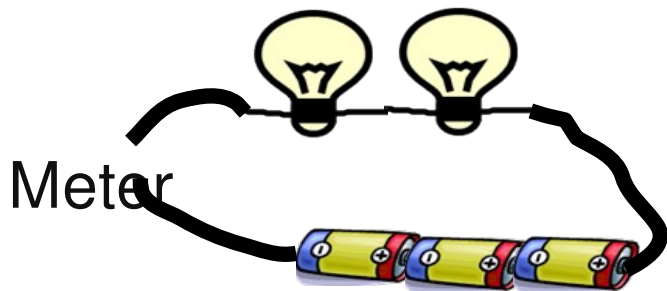




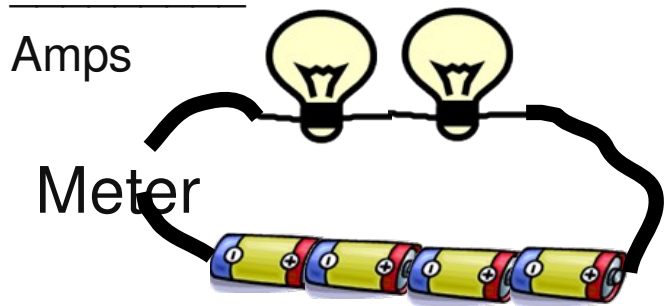
\_\_\_\_\_ Amps



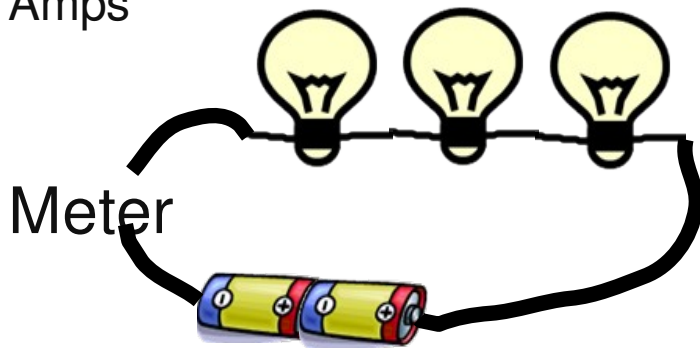
\_\_\_\_\_ Amps



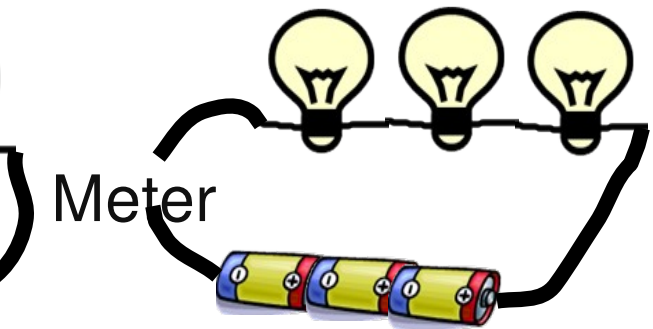
\_\_\_\_\_ Amps



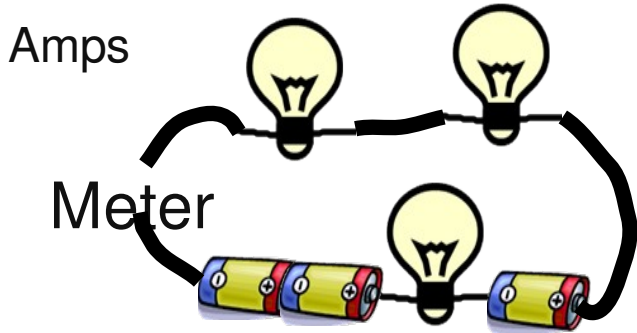
\_\_\_\_\_ Amps



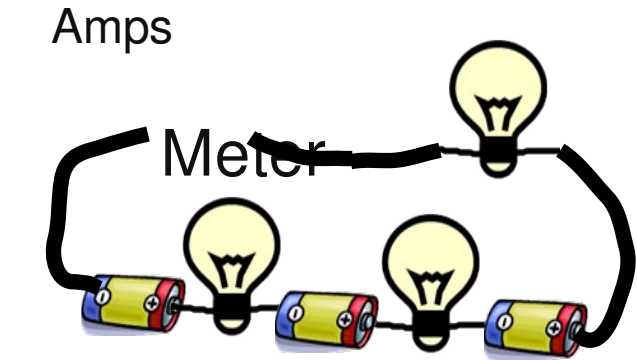
\_\_\_\_\_ Amps



\_\_\_\_\_ Amps



\_\_\_\_\_ Amps



\_\_\_\_\_ Amps

- 1) What is the scientific definition of a circuit?
- 2) As you added more light bulbs to the series circuit, what happened to the brightness of each of the bulbs?
- 3) As you added more light bulbs to the series circuit, what happened to the measure of current?
- 4) As you added more batteries to the series circuit, what happened to the brightness of each of the bulbs?
- 5) As you added more batteries to the series circuit, what happened to the measure of current?
- 6) Of all the circuits you tested today, which was the dimmest?
- 7) Of all the circuits you tested today, which was the brightest?
- 8) How does the number of batteries affect the amount of current that flows through the circuit?