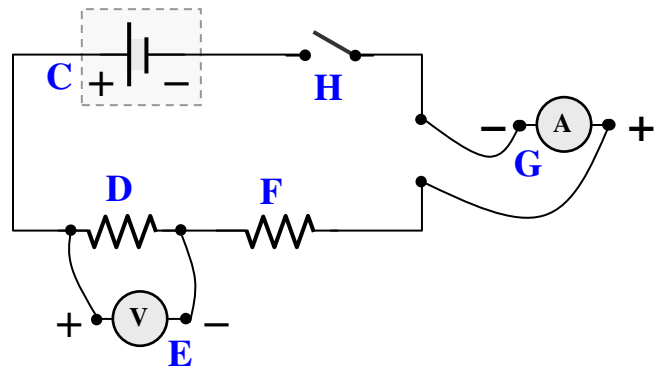


### Quiz #4: DC Circuits & Kirchoff's Laws

Name: \_\_\_\_\_

Quizzes that have any marks made in pen rather than pencil will have an automatic -2 added to the grade.

1. Here's a circuit diagram. Identify the parts labeled C through H. Answer "F" has been done for you already...



C = \_\_\_\_\_

D = \_\_\_\_\_

E = \_\_\_\_\_

F = a resistor

G = \_\_\_\_\_

H = \_\_\_\_\_

Examples: The SI **units** of *distance* are *meters*. The SI units of *time* are *seconds*.

2. What are the SI units of *electric potential*? \_\_\_\_\_

3. What are the SI units of *electric current*? \_\_\_\_\_

4. What are the SI units of *electrical resistance*: \_\_\_\_\_

5. The symbol for electric current is  $I$  or  $i$ , and it represents an electric "flow" similar to water flowing in a pipe. The units are "Amperes". If the "flow" of water in a pipe might be measured as volume per time (perhaps having units of gallons per minute), then Amperes should **also** represent the motion of *something* per time, too. According to the lab manual, what is the word for the "something" that flows through a wire?

\_\_\_\_\_

6. What are the SI units of your previous answer? \_\_\_\_\_

7. Electric current points in the same direction that [positive][negative] charges move (circle one)

8. According to the lab manual, a voltmeter (which measures electric potential difference) is a lot like a resistor. What does the lab manual say about the resistance of a good voltmeter?

*The resistance of a good voltmeter is very* \_\_\_\_\_