

1. What's another name for a coulomb per second (C/S)?
 - a. Amp
2. What's the symbol we use for Current?
 - a. I
3. What kind of circuit has two resistors in a row (charges HAVE to flow through both)?
 - a. Series
4. What is the full name for an amp?
 - a. Ampere
5. What's the overall resistance for a 10 Ω and a 40 Ω resistor in series?
 - a. 50 Ω (add them)
6. What is the same as a Joule per coulomb (energy per charge)?
 - a. A volt
7. If you have a 100 Ω resistor and a 10 Ω resistor in parallel, would you guess the total resistance would be: 55 Ω , 110 Ω , 10 Ω , less than 10 Ω . Explain using the holiday shopping analogy?
 - a. It would have to be less. The 100 ohm resistor added in parallel only DECREASES the overall resistance of the 10 Ω resistor alone. Therefore it must be less (9.1 Ω)
8. What kind of multiple resistor situation has a "fork in the road"?
 - a. Parallel
9. State Ohm's law
 - a. $\Delta V = iR$
10. For purposes of calculations, how much resistance is there across a copper wire?
 - a. Zero
11. In "real life", is there any resistance across a copper wire?
 - a. Yes, but it's very small
12. Do electrons move fast in a wire when voltage is applied to the wire?
 - a. No. They "drift" very slowly.
13. In the symbol for a battery, what does the wide end mean? The narrow end?
 - a. Positive battery terminal. Negative battery terminal.
14. In the holiday shopping analogy, what represents resistance?
 - a. Waiting for the cashier?
15. What give the "push" electrons feel in a circuit?
 - a. The voltage supplied by the battery
16. What does a very slow cashier represent in the holiday shopping analogy?
 - a. A resistor with a lot of ohms (high resistance)
17. What kind of unit is kW-hr (power, energy, voltage, current, etc.)?
 - a. Energy
18. Do you pay ComEd for power?
 - a. NO. You pay for energy.
19. What is the voltage drop across a wire considered to be?
 - a. Zero
20. About how much does energy cost per kilowatt-hour
 - a. About 10 cents