

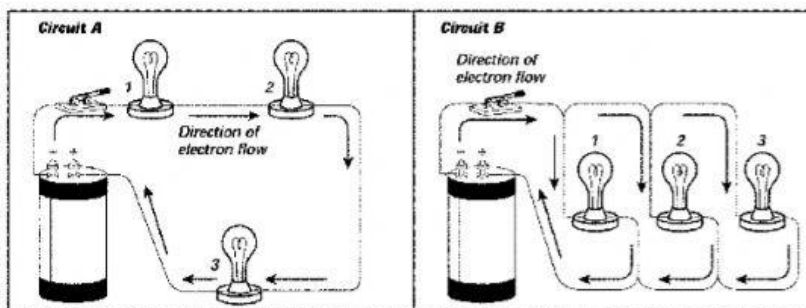
Electricity&Magnetism Unit Test

Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

- ____ 1. You can increase the strength of an electromagnet's field by
- using a stronger ferromagnetic material for the core.
 - increasing the thickness of the insulation on the wire.
 - decreasing the number of loops in the wire.
 - decreasing the current in the wire.
- ____ 2. An electric current will always follow
- from high voltage to low voltage.
 - from low voltage to high voltage.
 - a path toward the north pole.
 - a path toward the south pole.
- ____ 3. The buildup of charges on an object is called
- positive charge.
 - negative charge.
 - static electricity.
 - static discharge.
- ____ 4. Every magnet, regardless of its shape, has two
- magnetic fields.
 - magnetic domains.
 - magnetic charges.
 - magnetic poles.
- ____ 5. What happens if you break a magnet in half?
- Neither half will have a pole.
 - Neither half will be able to attract or repel.
 - One half will have a north pole only and one half will have a south pole only.
 - Each half will be a new magnet, with both a north and a south pole.
- ____ 6. In a parallel circuit with three bulbs,
- there is only one path for the current to take.
 - the bulbs must all be located on the same branch.
 - current from each bulb has its own path through the circuit.
 - the overall resistance decreases if a new branch is added.
- ____ 7. A circuit that has two or more separate branches for current is a(n)
- circuit diagram
 - electron circuit
 - parallel circuit
 - series circuit
- ____ 8. The function of a lightning rod is to
- produce lightning.
 - prevent short circuits in a building's wiring.
 - protect a building from damage due to lightning.
 - make an object lighter.

Series and Parallel Circuits



- ____ 9. What would happen if the switch in circuit B was opened?
- only bulb 1 would go out
 - only bulb 3 would go out
 - only bulb 2 would go out
 - all of the bulbs would go out
- ____ 10. In circuit A, which bulb(s) would be the brightest?
- 1 would be the brightest
 - All would be the same
 - 2 would be the brightest
 - 1 and 3 would be brightest