

Electricity and Magnetism Worksheet

- When a plastic rod is rubbed with fur, the plastic rod becomes negatively charged. Which statement explains the charge transfer between the plastic rod and the fur?
 - Protons are transferred from the plastic rod to the fur.
 - Protons are transferred from the fur to the plastic rod.
 - Electrons are transferred from the plastic rod to the fur.
 - Electrons are transferred from the fur to the plastic rod.
- A series circuit has a 6-V battery and 3 ohms of resistance. How much current will flow through the circuit?
- What voltage is required to run a 45-watt light bulb if the current is 0.5 ampere?
- How much current is used by a 120-V refrigerator that uses 650 W of power?
- Which **best** describes a circuit in series?
 - Different parts are on separate branches.
 - Current values are different at various points in the circuit.
 - Electrons may take several paths.
 - Electrons have only one path at all times.
- Which statement is true about parallel circuits?
 - They contain separate branches through which current can flow.
 - They are usually called open circuits.
 - They provide one path through which current can flow.
 - They cease to function when one part of the circuit is disconnected.
- A motor has a current of 2 A flowing through it when it is powered with a 12-V battery. What is the power (wattage) used by the motor?
- A sheet of paper is positioned to completely cover a bar magnet. Iron filings are then gently sprinkled on the paper. What does the pattern created by the iron filings indicate?
 - the stronger of the two poles
 - the distance between the two poles
 - the midpoint of the area between the two poles
 - the magnetic field created by the two poles
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