

Riya plugged a heater (1000 W), an electric iron (750 W), and a table fan (80 W) into the same extension board. After 20 minutes, the extension board became very hot, and its fuse melted.

Questions

1. Why did the extension board become hot?
2. Why did the fuse melt?
3. Which effect of electric current is responsible?
4. What safety measure should Riya follow?
5. What might happen if there were no fuse?
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After charging his phone for an hour, Aman noticed that the charger had become warm.

Questions

1. Why does the charger become warm?
2. Which effect of electric current is responsible?
3. Is all electrical energy converted into useful energy?
4. Suggest one way to reduce unnecessary heating.
5. Why should damaged chargers not be used?

A student replaced the fuse wire in a circuit with a thick copper wire because the fuse kept melting. Later, during a short circuit, the wires became extremely hot and smoke appeared.

1. Why was replacing the fuse with copper wire unsafe?
2. Why didn't the copper wire melt?
3. Which effect of electric current caused the smoke?
4. What is the purpose of a fuse?
5. Mention one other safety device used in homes.