1. **A particle contains 25 protons and 23 electrons. What type of electric charge does the particle have?**
2. **What carries electric charge between your body and a carpet?**
3. **Why do the balloon and the girl’s hair attract one another?**
4. **What type of electric charge do both balloons have?**
5. **What is the electric charge on a particle that contains two protons and one electron?**
6. **Why can electrons move between atoms more easily than protons?**
7. **Make a list of five substances that you think are electrical conductors and five substances that you think are electrical insulators.**

**Electrical Conductors Electrical Insulators**

1. **Would the toaster work if the entire cord was made of plastic? Explain your answer.**
2. **How can the whole doorknob have a neutral charge, even though part of the doorknob has a positive charge and part has a negative charge?**
3. **After the rod touches the doorknob, does it have more electrons than protons or more protons than electrons? Explain your answer.**
4. **What causes electrons to move between objects that are rubbed together?**
5. **Why does only the surface of an insulator become charged when a charged object is near it?**
6. **What type of electric charge does the surface of the water molecules nearest the balloon have?**
7. **What is an electric force?**
8. **What are two factors that affect the electric force between two charged objects?**
9. **If both objects in the figure on page 376 were negatively charged, in which directions would the arrows point?**
10. **What is a field force?**
11. **Why do electric field lines point away from a positively charged object?**
12. **Why do all of the electric field lines in the image of two positively charges particle point away from the particles?**

**Vocabulary**

1. **Electrical conductor**
2. **Electrical insulator**
3. **Electric charge**
4. **Electric field**
5. **Electric force**