DATE: NAME: CLASS:

CHAPTER 10 BLM 10-16

Section 10.2 Review (Alternative Format)

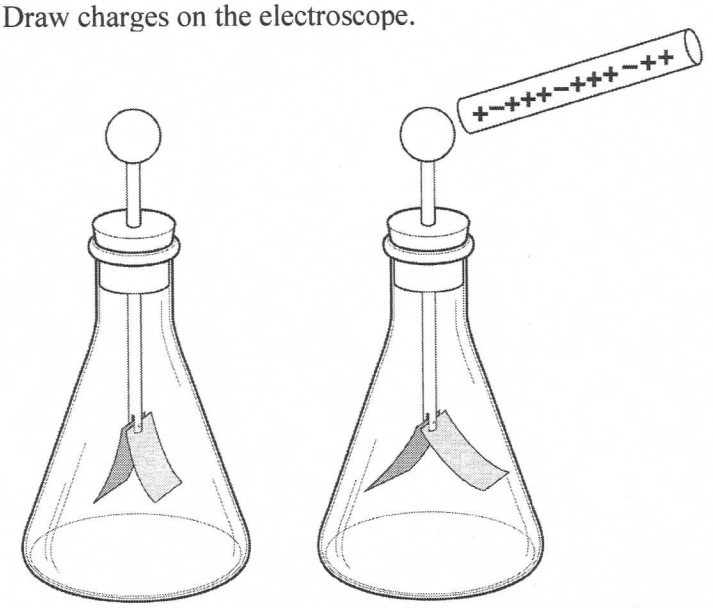
Goal • To review the concepts from Section 10.2.

1. ~~Draw a line~~ to match each term with its effect.

• charging by contact	• changes distribution of electrons on another object, but does not change the object's overall charge
• charging by friction	• generates opposite charges on the materials rubbed together
• charging by induction	• generates the same type of charge on the neutral object as the charged object

2. A metal leaf electroscope is charged. A positively charged rod moves near the sphere.

a. Draw charges on the electroscope.



b. The charge on the electroscope is _____ (positive / negative).

c. How would the diagram change if the sphere and rod were insulators?

A. The leaves would get closer together.
B. The leaves would move apart.
C. No change.

Explain how you know. _____

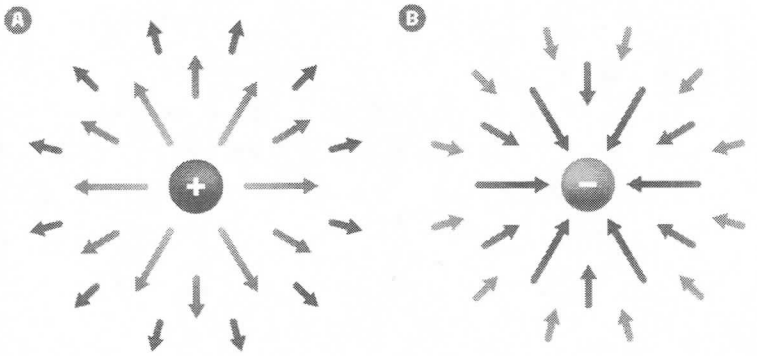
_____

_____

978-0-07-031863-2

Section 10.2 Review (Alternative Format)

3. Look at this figure.



The strength of an object's electric field _____ (increases / decreases) as distance increases.

4. You can charge a balloon by rubbing it against your clothing. Then you can stick the charged balloon to a wall.

a. The wall is charged by _____ (contact / friction / induction) because _____

_____

b. The balloon eventually falls from the wall because _____

_____

5. A negatively charged ebonite rod is held near a pith ball electroscope.

If the charge of the pith ball is positive, then the pith ball will _____.

If the charge of the pith ball is neutral, then the pith ball will _____.

If the charge of the pith ball is negative, then the pith ball will _____.

6. You are given wool and material X. You have a pith ball electroscope.

How can you tell which material holds on to its electrons more strongly?

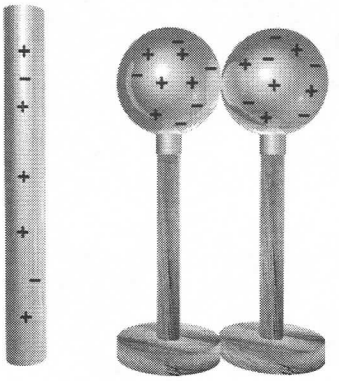
_____

_____

978-0-07-031863-2

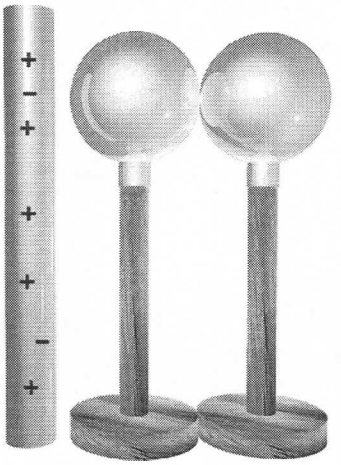
Section 10.2 Review (Alternative Format)

7. The diagram shows representative charges on a rod and two identical metal spheres.

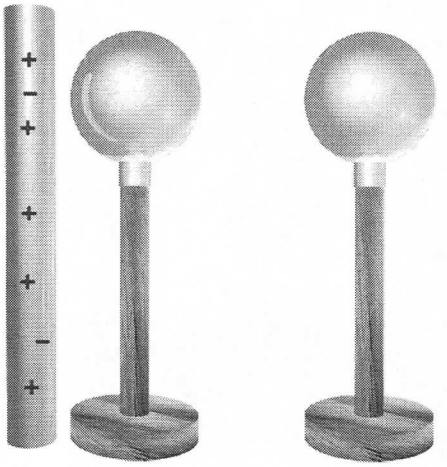


a. What is the charge on the rod? _____

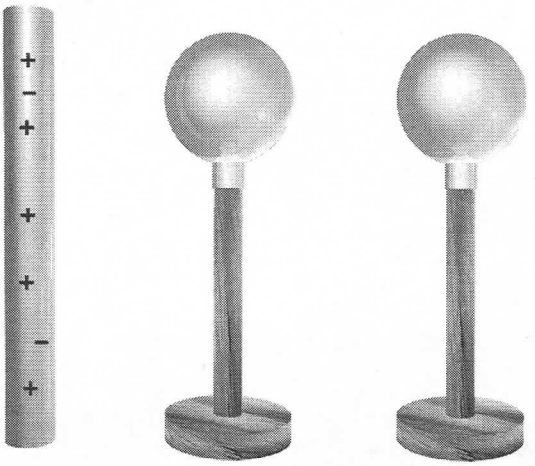
b. The rod is moved closer to the spheres. Draw the resulting charges.



c. One sphere is moved away. Draw the resulting charges.



d. The rod is moved away. Draw the charges on the spheres and the rod.



978-0-07-031863-2