

Electrostatics

Understanding Concepts

Name _____

In the space to the left, write the letter of the answer to the question.

b 1. Which atom pictured below is electrically neutral?



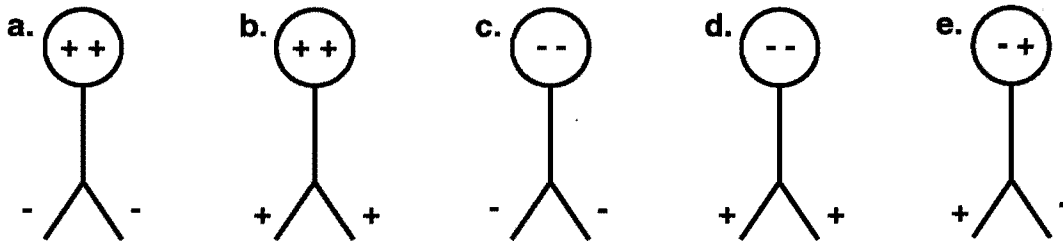
d 2. In which direction will the positively charged ball shown below move? The rods are equally charged.



d 3. A negatively charged rod is brought near the left hand side of two insulated, neutral metal spheres that are touching one another. The spheres are then separated while the rod is present. The charged rod is removed. Which diagram below shows the correct charges on the spheres?



On the lines below, place the letter of the diagram that best represents the charge on an electroscope during each of the procedures described. (you may use a choice more than once)



d 4. A positively charged rod is brought near, but does not touch, an uncharged electroscope.

c 5. A glass rod is charged positively by rubbing it with silk. The silk is touched to a neutral electroscope.

c 6. A positive rod is brought near a neutral electroscope, and the electroscope is charged by induction.

b 7. An electroscope is charged by conduction with a positively charged rod.

A 8. A negatively charged rod is brought near, but does not touch, a neutral electroscope.

e 9. A metal rod is brought in contact, and grounds a positively charged electroscope.