

Skills Worksheet

Concept Review

Section: Electric Charge and Force

1. Describe the interaction between two unlike charges.

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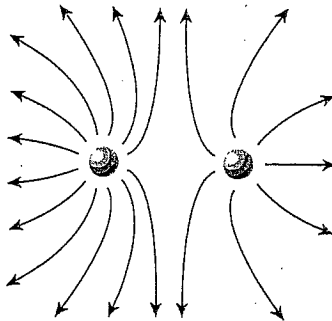
2. Determine the amount by which the electric force between two charges is increased when the distance between the charges is halved.

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3. Categorize the following as conductors or insulators:

- \_\_\_\_\_ a. salt water
- \_\_\_\_\_ b. a silver belt buckle
- \_\_\_\_\_ c. a piece of wood
- \_\_\_\_\_ d. a penny
- \_\_\_\_\_ e. a candy bar

4. Determine whether each charge in the diagram below is positive or negative. Indicate which charge is greater.



5. Suppose the electric field in a region points upward.

a. Determine the direction of the electric force on a proton placed in the field.

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b. Determine the direction of the electric force on an electron placed in the field.

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c. Compare the accelerations of the proton and electron placed in this electric field.

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