

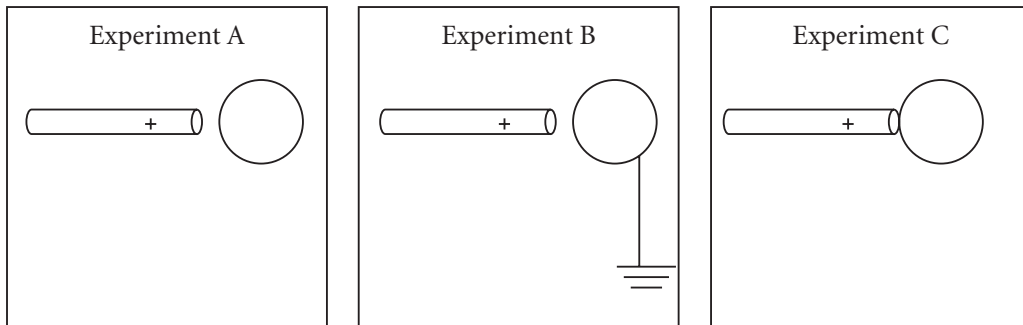
**Electric Forces
and Fields**

HOLT PHYSICS

Concept Review

Electric Charge

1. A plastic rod rubbed with wool was used to charge a small metal sphere in three experiments, as illustrated below. The spheres were held by insulating stands. The sphere in Experiment B was grounded. Assume the rod had a positive charge.



- a. Were charges transferred in Experiments A, B, or C? If so, between which objects?

- b. Sketch the charge distribution for the spheres in each experiment.

- c. The rod was removed after a while. In which experiment(s) did the sphere end up with excess electric charge?

- d. In which experiment(s) did polarization occur?

- e. What happened to the excess charge on the rod after it was removed in experiment A? in B? in C?
