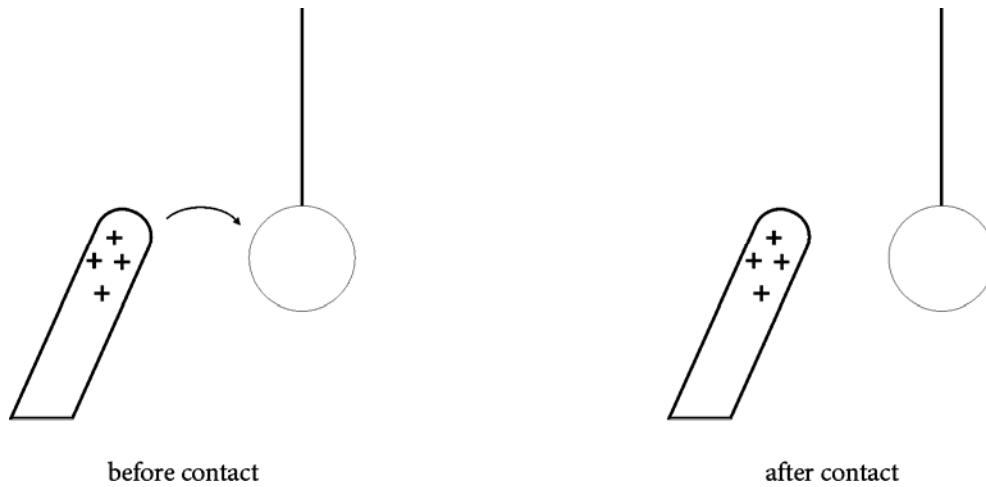
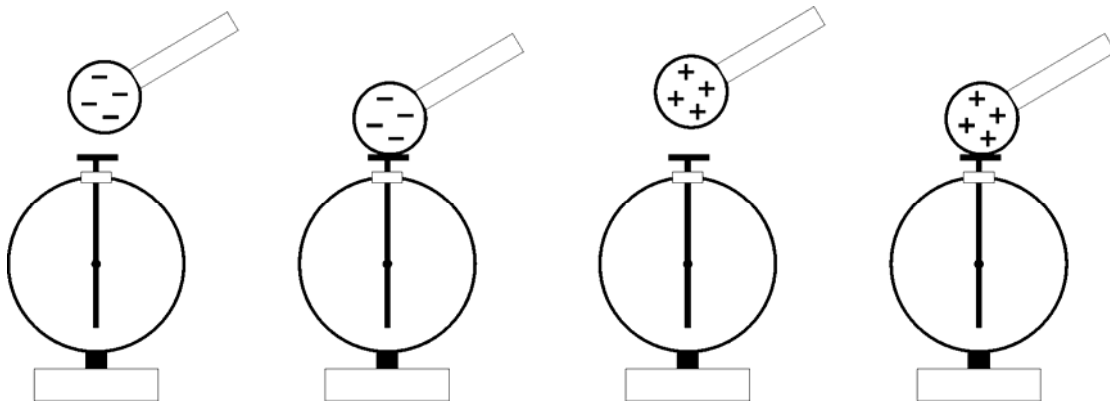


## EXERCISE: CHARGING BY CONTACT AND BY INDUCTION

1. A positively charged rod is brought near an uncharged, conducting ball suspended on a string. Sketch the distribution of the charges on the ball and the force acting on the ball before and after contact.



2. A negatively charged conducting ball is brought near the top plate of an electroscope. After contact the same procedure is repeated with a positively charged ball (without first discharging the electroscope). Sketch the distribution of charges on the electroscope for the illustrated situations.



3. A positively charged ball is brought near the outside of a metal cup. Sketch the distribution of the charges on the cup before and after contact.

