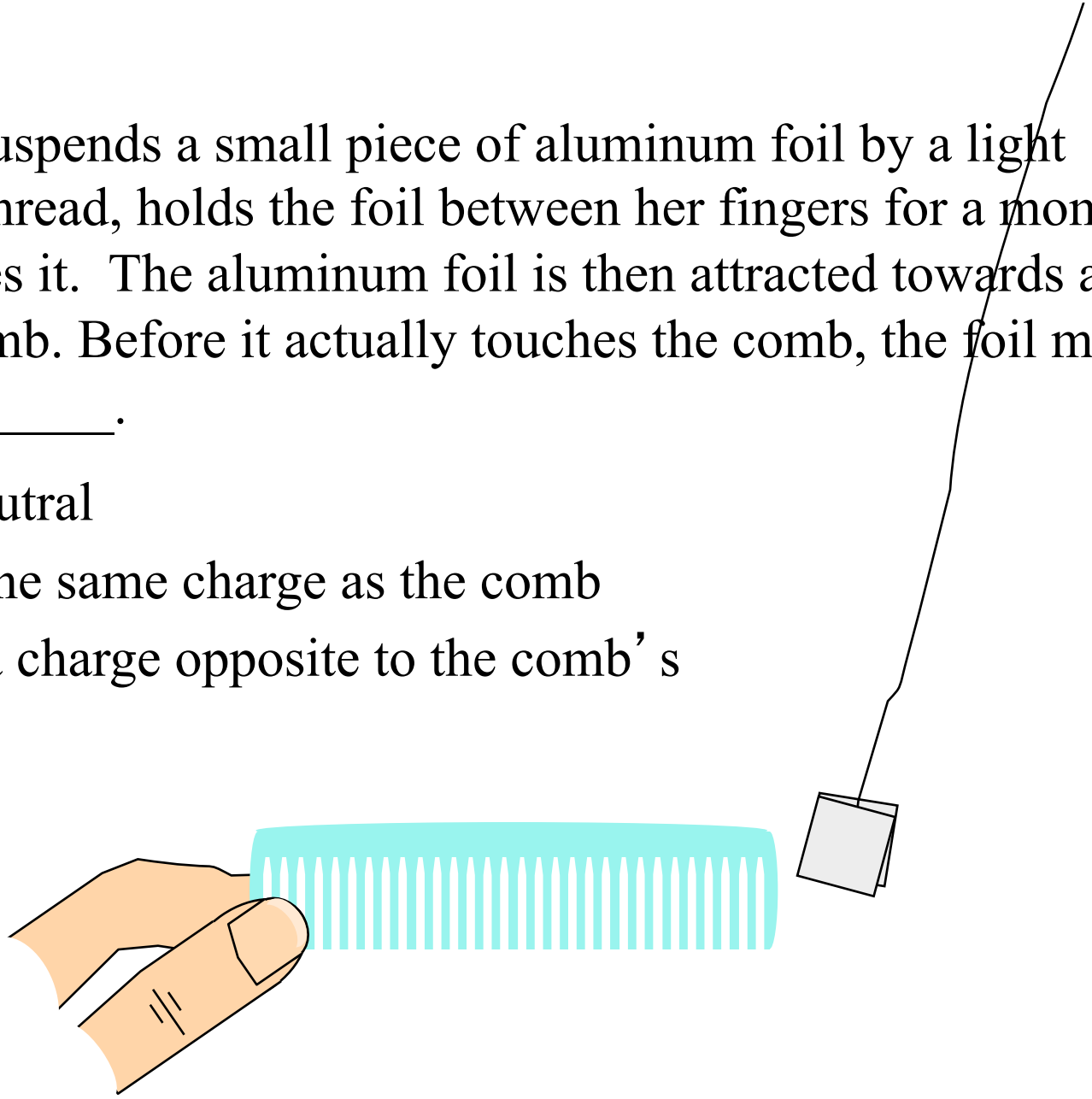
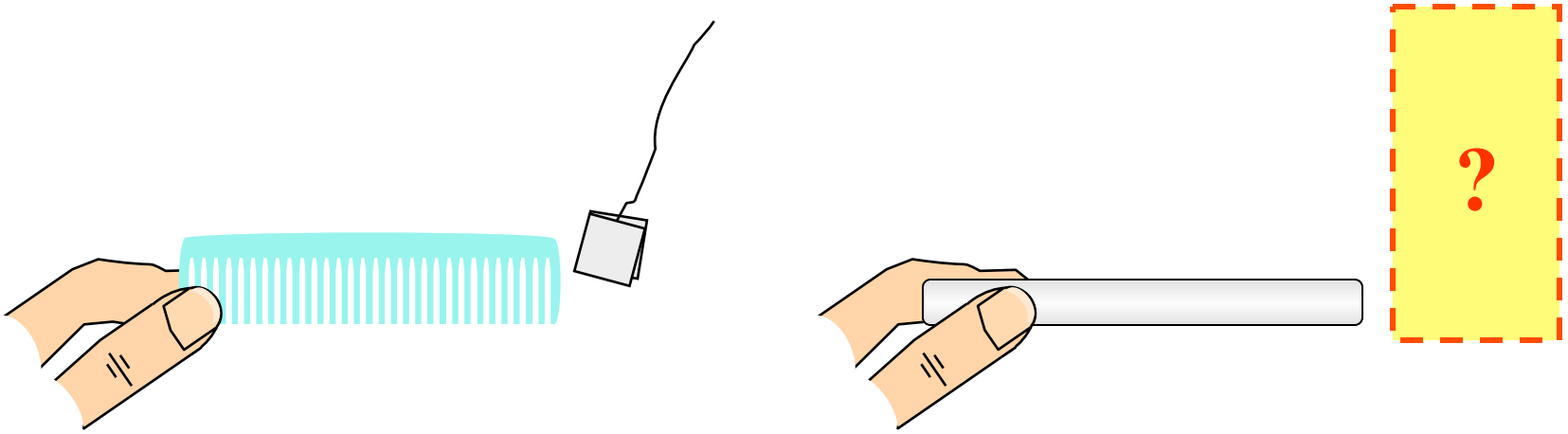
A student suspends a small piece of aluminum foil by a light insulating thread, holds the foil between her fingers for a moment, then releases it. The aluminum foil is then attracted towards a charged comb. Before it actually touches the comb, the foil most likely_____.

A. is neutral

B. has the same charge as the comb

C. has a charge opposite to the comb's





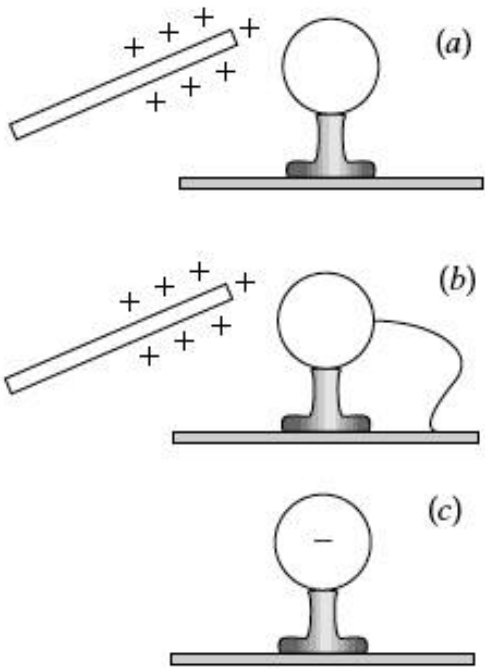
A small piece of aluminum foil suspended by a light insulating thread is attracted towards a charged comb. Suppose that instead of the comb you used a glass rod, which is charged oppositely to the comb. In this case, the aluminum foil would _____ .

A. be attracted towards the glass rod

B. be repelled by the glass rod

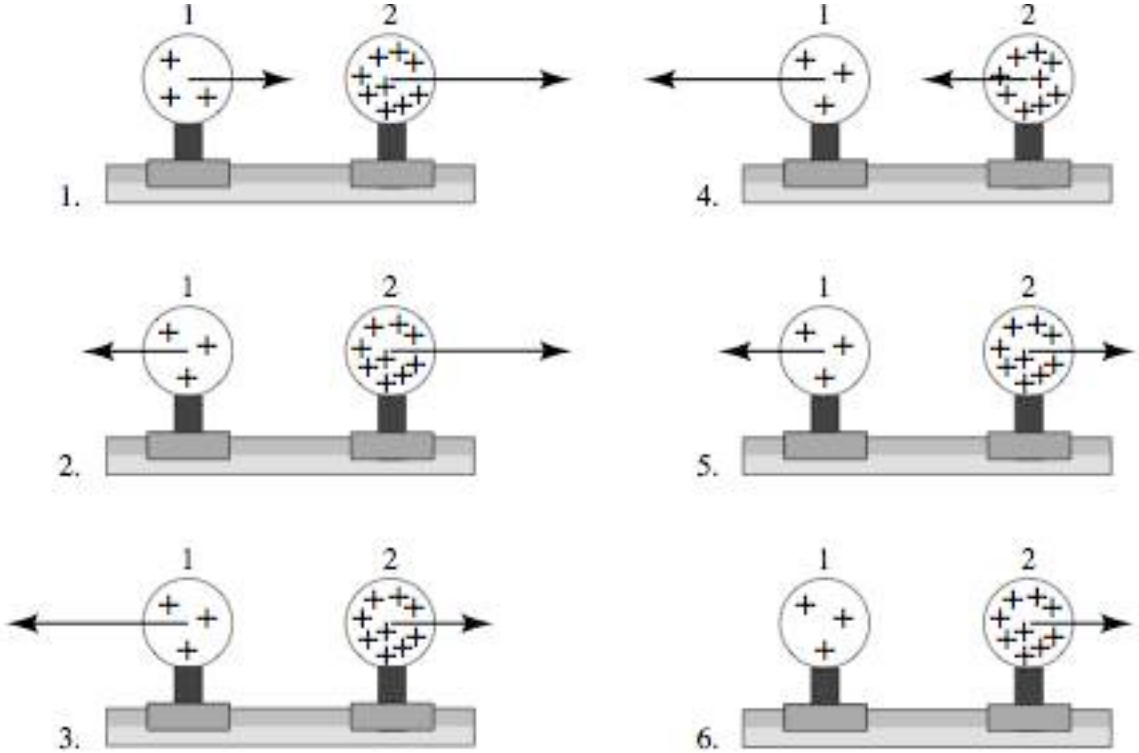
C. do neither

A + charged object is placed near a conductor attached to an insulating pedestal (a). After the opposite side of the conductor is grounded for a short time (b), the conductor becomes negatively charged (c). Based on this information, we can conclude that within the conductor



1. both + and - charges move freely
2. only - charges move freely
3. only + charges move freely
4. We can't really conclude anything

Two uniformly charged spheres are firmly fastened to and electrically insulated from frictionless pucks on an air table. The charge on sphere 2 is three times the charge on sphere 1. Which force diagram correctly shows the magnitude and direction of the electrostatic forces



7. none of the above