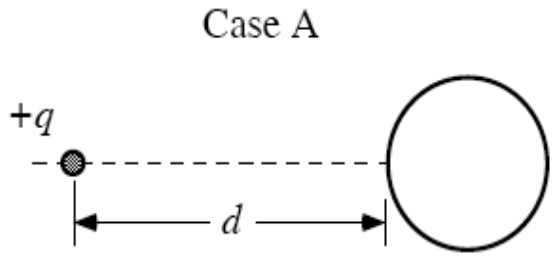
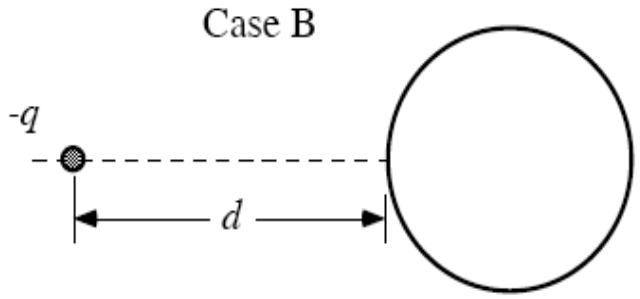
In each case shown at right there is a point charge $+q$ a distance $d$ from the closest point of a neutral metal sphere. The sphere in case B has a larger diameter than the sphere in case A. Three students are comparing the two cases:




Aaron: *"I don't think there would be any electric forces in either case. Since the sphere has no net charge, there is no attraction or repulsion."*




Bao: *"The forces on the point charges are equal in the two cases. There is an attraction because the point charge will pull the electrons in the sphere toward it. But the distance between the point charge and the electrons is the same in both cases, so the force of attraction is the same."*

Carlota: *"When the electrons are pulled toward the point charge, they leave a pool of positive charges on the other side of the sphere. These positive charges repel the point charge, and this balances the attraction of the electron. The sphere overall is still neutral, so there is as much positive charge as negative charge, and there is no net force between the objects."*

**Which of these students is correct?**