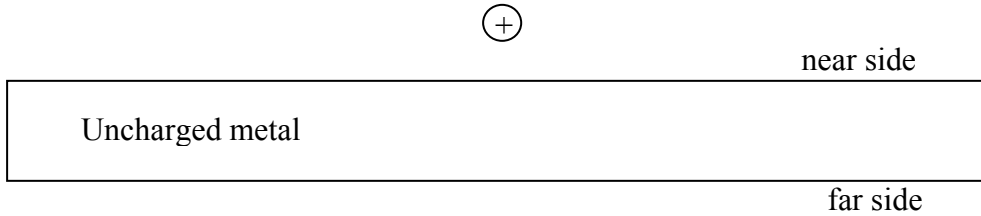


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### Quiz 3A

A positive point charge is brought near an uncharged metal slab as shown below.



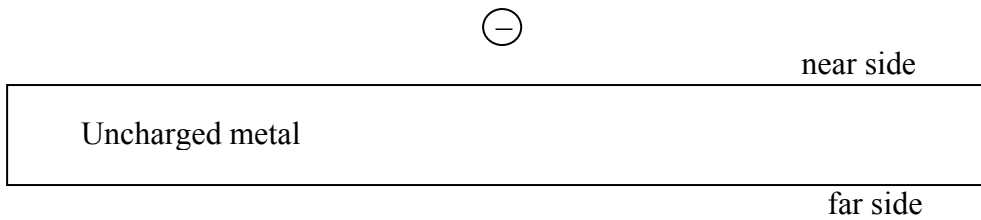
- a. The charge on the near side of the slab is \_\_\_\_\_  
(positive/negative/zero). Explain.
  
  
  
  
  
  
  
  
  
  
- b. The net electric force between the charge and the slab is \_\_\_\_\_  
(attractive/repulsive/zero). Explain.
  
  
  
  
  
  
  
  
  
  
- c. If the point charge were negative, the force in part b would be \_\_\_\_\_  
(attractive/repulsive/zero). Explain.

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### Quiz 3B

A negative point charge is brought near an uncharged metal slab as shown below.



- The charge on the near side of the slab is \_\_\_\_\_  
(positive/negative/zero). Explain.
- The net electric force between the charge and the slab is \_\_\_\_\_  
(attractive/repulsive/zero). Explain.
- The far side of the slab is grounded, while the point charge remains in the same place. After this, the charge on the near side of the slab is \_\_\_\_\_  
(positive/negative/zero). Explain.

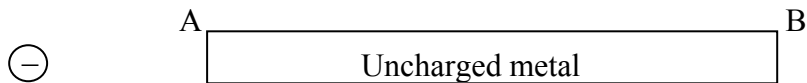


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### Quiz 3D

A negative point charge is brought near an uncharged metal bar as shown below. The ends of the bar are labeled A and B.



- a. The charge at B is \_\_\_\_\_ (positive/negative/zero).  
Explain.
- b. B is now grounded. After that, the charge at B is \_\_\_\_\_  
(positive/negative/zero). Explain.
- c. Then the grounding is removed, and after that the point charge is moved far from the bar. As a result of this process, the net charge on the bar is \_\_\_\_\_  
(positive/negative/zero). Explain.