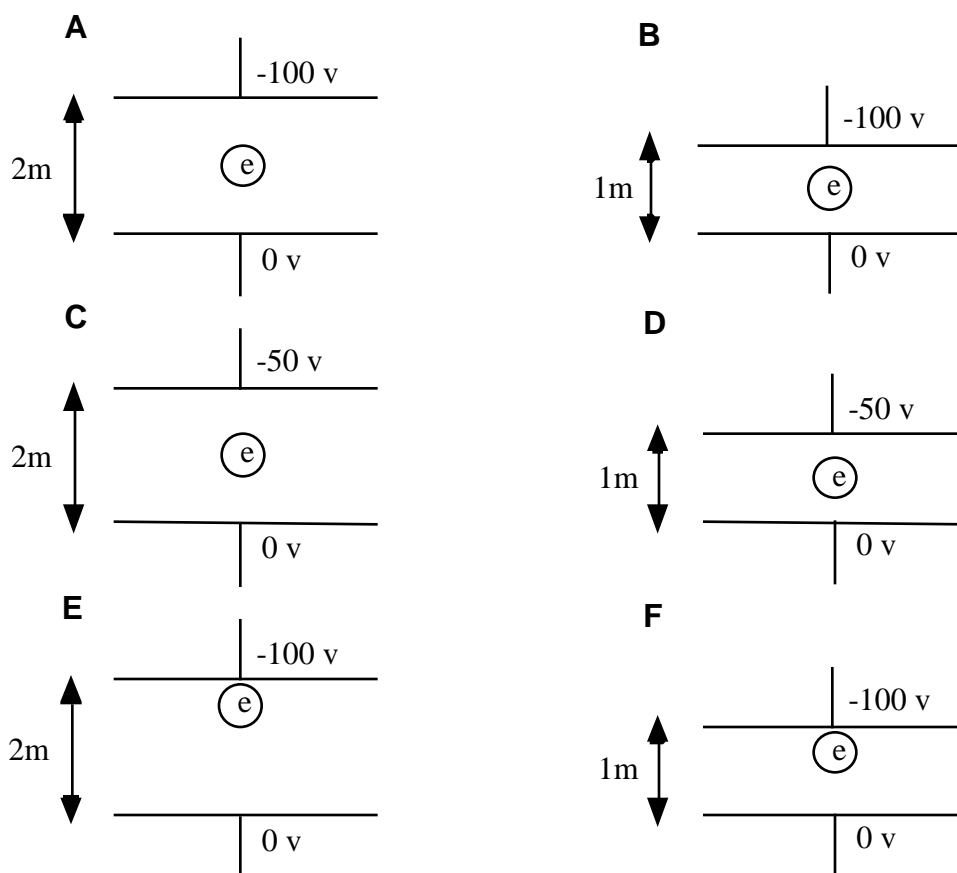


Electron Within a Charged Capacitor—Electric Potential Energy ¹⁵⁸

Consider an electron between the plates of a charged capacitor. The figures below show situations where the potential across the capacitor, and the separations between the capacitor plates, vary. Specific values are given in each figure.

Rank according to the magnitude of the electric potential energy of the electron.



Greatest 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____ Least

Or, all of the electric potential energies are the same. _____

Please carefully explain your reasoning.

How sure were you of your ranking? (circle one)

Basically Guessed

Sure

Very Sure

1 2 3 4 5 6 7 8 9 10

¹⁵⁸ A. Van Heuvelen, S. Heath, B. Willis, L. Bryant, D. Maloney, T. O’Kuma