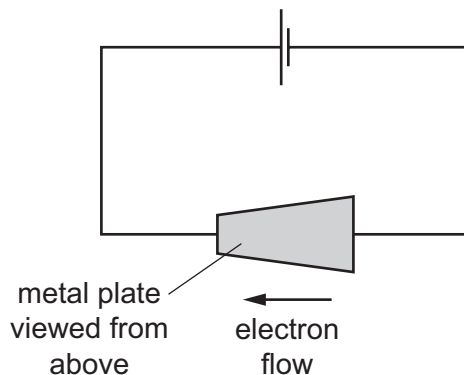


**30** A metal plate of uniform thickness is connected to a cell as shown.



Electrons move clockwise around the circuit.

Which statement about the metal plate is correct?

- A** The average drift speed of the conduction electrons decreases as they move from right to left through the plate.
- B** The average drift speed of the conduction electrons increases as they move from right to left through the plate.
- C** The number density of the conduction electrons decreases from right to left through the plate.
- D** The number density of the conduction electrons increases from right to left through the plate.