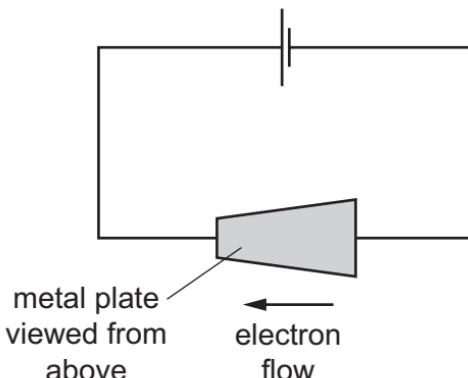


- 30** A metal plate of uniform thickness is connected to a cell as shown.



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.

- 31** The diagram shows the direction of the magnetic field in a 1.00-T field. The charge moving in the field has a