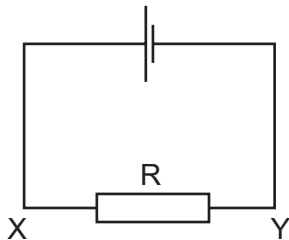


33 The current in the circuit shown is 3.2 mA.



What are the direction of flow and the rate of flow of electrons through the resistor R?

| | direction of flow | rate of flow / s ⁻¹ |
|----------|-------------------|--------------------------------|
| A | X to Y | 2.0×10^{16} |
| B | X to Y | 5.1×10^{-22} |
| C | Y to X | 2.0×10^{16} |
| D | Y to X | 5.1×10^{-22} |

34 A filament lamp is connected in series with a 120 Ω resistor. The current in the circuit is 500 mA.