

- 34** In deriving a formula for the combined resistance of three different resistors in series, Kirchhoff's laws are used.

Which physics principle is involved in this derivation?

- A** the conservation of charge
- B** the direction of the flow of charge is from negative to positive
- C** the potential difference across each resistor is the same
- D** the current varies in each resistor, in proportion to the resistor value

- 35** A source of e.m.f. of  $0.0\text{ mV}$  has an internal resistance of  $6.0\ \Omega$ .