

- 34** The combined resistance R_T of two resistors of resistances R_1 and R_2 connected in parallel is given by the formula

$$\frac{1}{R_T} = \frac{1}{R_1} + \frac{1}{R_2}$$

Which statement is used in the derivation of this formula?

- A** The currents through the two resistors are equal.
- B** The potential difference across each resistor is the same.
- C** The supply current is split between the two resistors in the same ratio as the ratio of their resistances.
- D** The total power dissipated is the sum of the powers dissipated in the two resistors separately.