22 Two resistors of resistances R_1 and R_2 are connected in parallel to a battery.

The combined resistance R_T of the two resistors is given by

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

Which concept is used in the derivation of this formula?

A There is no power loss in the battery.

B The current through each resistor is the same.

C The potential difference across each resistor is the same.

D The ratio of the currents through the resistors is equal to the ratio of their resistances.