

- 19** A resistor has resistance R . When the potential difference across the resistor is V , the current in the resistor is I . The power dissipated in the resistor is P . Work W is done when charge Q flows through the resistor.

What is **not** a valid relationship between these variables?

A $I = \frac{PQ}{W}$

B $Q = \frac{W}{IR}$

C $R = \frac{V^2}{P}$

D $R = \frac{W}{PQ}$