

21 Two cylindrical carbon resistors P and Q connected in series have a combined resistance of 84.0Ω . The length of resistor P is three times that of resistor Q. The cross-sectional area of P is half that of Q.

What is the resistance of resistor Q?

A 12.0Ω

B 33.6Ω

C 42.0Ω

D 72.0Ω

22 A cell with internal resistance is connected to a variable resistor, as shown. The resistance of the