

Question #72946, Physics / Other

A rectangular bar of iron 2 cm by 2 cm in cross section and is 40 cm long what is the resistance of bar, when resistivity for iron is  $1.1 \times 10^{-7}$  ohm.m

**Solution**

$$R = \frac{\rho L}{A} = \frac{\rho L}{ab};$$

$$R = \frac{1.1 \times 10^{-7} \times 0.40}{0.02^2} = 1.1 \times 10^{-4} \Omega$$

**Answer:**  $1.1 \times 10^{-4} \Omega$ .

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