

- 33** A copper wire is to be replaced by an aluminium alloy wire of the same length and resistance. Copper has half the resistivity of the alloy.

What is the ratio  $\frac{\text{diameter of alloy wire}}{\text{diameter of copper wire}}$ ?

**A**  $\sqrt{2}$

**B** 2

**C**  $2\sqrt{2}$

**D** 4