4 The resistance R of a wire of length l and cross-sectional area A, made of a metal of resistivity ρ, is given by the equation shown.

$$R = \frac{\rho l}{A}$$

A particular copper wire has the following properties.

length = (92.0 ± 0.5) m

diameter = (0.800 ± 0.005) mm

resistivity = $(1.70 \pm 0.05) \times 10^{-8}\,\Omega$ m

What is the percentage error in the resistance of the wire?

A 2% **B** 4% **C** 5% **D** 16%