3 A student carried out an experiment to determine the resistivity ρ of copper using a copper wire. The uncertainties in the measurements are shown.

uncertainty in length l of wire = 0.2%
uncertainty in diameter d of wire = 1.6%

The equation for resistivity ρ is $\rho = \dfrac{\pi d^2 R}{4l}$.

He obtains a resistivity value of $(1.71 \pm 0.07) \times 10^{-8}\,\Omega$ m with its associated uncertainty.

What is the uncertainty in the measurement of resistance R of the wire?

A 0.007% **B** 0.7% **C** 0.9% **D** 7%