2 To find the resistivity of a semiconductor, a student makes the following measurements of a cylindrical rod of the material.

length = 25 ± 1 mm

diameter = 5.0 ± 0.1 mm

resistance = 68 ± 1 Ω

He calculates the resistivity to be $5.34 \times 10^{-2}\,\Omega\,m$.

How should the uncertainty be included in his statement of the resistivity?

A $(5.34 \pm 0.07) \times 10^{-2}\,\Omega\,m$

B $(5.34 \pm 0.09) \times 10^{-2}\,\Omega\,m$

C $(5.3 \pm 0.4) \times 10^{-2}\,\Omega\,m$

D $(5.3 \pm 0.5) \times 10^{-2}\,\Omega\,m$