22. A student sets up a circuit and measures the voltage across and the current in a resistor.

The measurements and their uncertainties are

$$\text{voltage} = (10{\cdot}0 \pm 0{\cdot}1)\,\text{V}$$
$$\text{current} = (0{\cdot}50 \pm 0{\cdot}01)\,\text{A}$$

The approximate absolute uncertainty in the calculated value of the resistance of the resistor is

A $\pm 0{\cdot}11\,\Omega$

B $\pm 0{\cdot}2\,\Omega$

C $\pm 0{\cdot}4\,\Omega$

D $\pm 1\,\Omega$

E $\pm 2\,\Omega$.