

- 5** The resistance R of a resistor is to be determined. The current I in the resistor and the potential difference V across it are measured.

The results, with their uncertainties, are

$$I = (2.0 \pm 0.2)\text{A} \quad V = (15.0 \pm 0.5)\text{V}.$$

The value of R is calculated to be 7.5Ω .

What is the uncertainty in this value for R ?

A $\pm 0.3\Omega$

B $\pm 0.5\Omega$

C $\pm 0.7\Omega$

D $\pm 1\Omega$

Space for working