

- 1** A digital voltmeter with a three-digit display is used to measure the potential difference across a resistor. The manufacturers of the meter state that its accuracy is  $\pm 1\%$  and  $\pm 1$  digit. The reading on the voltmeter is 2.05V.

**(a)** this reading, calculate, to the nearest digit,

**(i)** a change of 1% in the voltmeter reading,

change = .....V [1]

**(ii)** the maximum possible value of the potential difference across the resistor.

maximum value = .....V [1]

**(b)** The reading on the voltmeter has high precision. State and explain why the reading may not be accurate.

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.....[2]