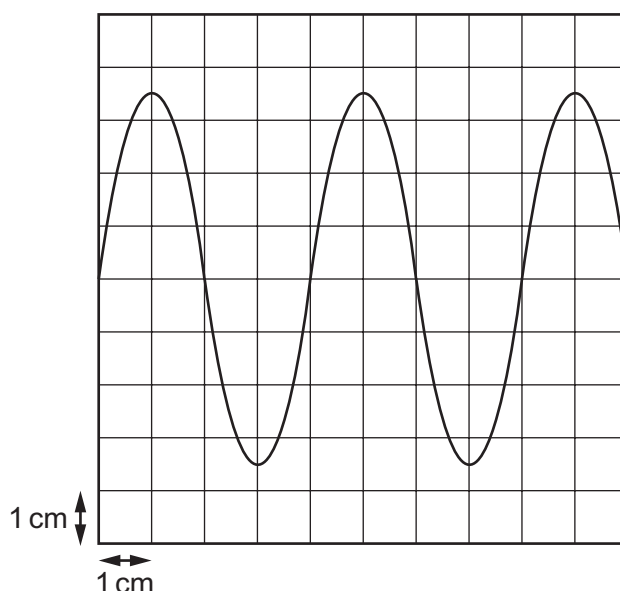


- 5 A person calculates the potential difference across a wire by using the measurements shown.

Which measured quantity has the greatest contribution to the percentage uncertainty in the calculated potential difference?

	quantity	value	uncertainty
<b>A</b>	current / A	5.0	$\pm 0.5$
<b>B</b>	diameter of wire / mm	0.8	$\pm 0.1$
<b>C</b>	length of wire / m	150	$\pm 5$
<b>D</b>	resistivity of metal in wire / $\Omega \text{ m}$	$1.6 \times 10^{-8}$	$\pm 0.2 \times 10^{-8}$

- 6 A cathode-ray oscilloscope (c.r.o.) is connected to an alternating voltage. The following trace is produced on the screen.



The oscilloscope time-base setting is  $0.5 \text{ ms cm}^{-1}$  and the Y-plate sensitivity is  $2 \text{ V cm}^{-1}$ .

Which statement about the alternating voltage is correct?

- A** The amplitude is 3.5 cm.
- B** The frequency is 0.5 kHz.
- C** The period is 1 ms.
- D** The wavelength is 4 cm.