

32 Which expression gives the definition of resistance?

- A** current divided by potential difference
- B** current multiplied by potential difference
- C** potential difference divided by current
- D** resistivity multiplied by length

A-Level Physics: **s25 14**

31 The resistance of some electrical components may change with changing conditions.

Which component's resistance increases?

- A** a filament lamp as the potential difference (p.d.) across it increases
- B** a light-dependent resistor (LDR) as the intensity of the light incident on it increases
- C** a metallic conductor at constant temperature as the current through it increases
- D** a thermistor as its temperature increases

A-Level Physics: **m25 12**

31 A copper wire is 6.4 m long and has a resistance of $0.92\ \Omega$.

The resistivity of copper is $1.8 \times 10^{-8}\ \Omega\text{m}$.

What is the diameter of the wire?

- A** $5.7 \times 10^{-5}\text{ m}$ **B** $1.0 \times 10^{-4}\text{ m}$ **C** $4.0 \times 10^{-4}\text{ m}$ **D** $7.1 \times 10^{-4}\text{ m}$