

32 What is a possible charge on a particle?

- A** $6.40 \times 10^{-20} \text{ C}$
- B** $4.00 \times 10^{-19} \text{ C}$
- C** $1.12 \times 10^{-18} \text{ C}$
- D** $9.11 \times 10^{-18} \text{ C}$

A-Level Physics: **w25 14**

35 A wire carries a current of 5.6 A.

What is the number of conduction electrons that pass a point on the wire in a time of 20 s?

- A** 1.8×10^{18}
- B** 2.2×10^{19}
- C** 3.5×10^{19}
- D** 7.0×10^{20}

A-Level Physics: **s25 12**

34 A resistor of resistance 200Ω is connected to a supply that has a p.d. of 4.00 V.

How many electrons enter the resistor in 4.00 s?

- A** 3.13×10^{16}
- B** 1.25×10^{17}
- C** 5.00×10^{17}
- D** 1.25×10^{21}

A-Level Physics: **s25 14**

29 The resistance of a lamp is 10Ω and the potential difference across it is 6.0 V.

How many electrons pass through the lamp in a time of 24 hours?

- A** 5.2×10^4
- B** 9.0×10^{19}
- C** 5.4×10^{21}
- D** 3.2×10^{23}

A-Level Physics: **m25 12**

33 A metal electrical conductor has a resistance of $5.6 \text{ k}\Omega$. A potential difference (p.d.) of 9.0 V is applied across its ends.

How many electrons pass a point in the conductor in one minute?

- A** 6.0×10^{20}
- B** 1.0×10^{19}
- C** 6.0×10^{17}
- D** 1.0×10^{16}