

**30** A wire carries a current of 2.0 amperes for 1.0 hour.

How many electrons pass a point in the wire in this time?

**A**  $1.2 \times 10^{-15}$

**B**  $7.2 \times 10^3$

**C**  $1.3 \times 10^{19}$

**D**  $4.5 \times 10^{22}$

**31** The diagram shows a circuit in which the battery has negligible internal resistance