

1 Which quantity with its unit is correct?

- A acceleration of a bicycle =  $1.4 \text{ m s}^{-1}$
- B electric current in a lamp =  $0.25 \text{ A s}^{-1}$
- C electric potential difference across a battery =  $8.0 \text{ J C}^{-1}$
- D kinetic energy of a car =  $4500 \text{ N m}^{-1}$

2 The luminosity,  $L$ , of a star is given by