

- 2** A metal sphere of radius  $r$  is dropped into a tank of water. As it sinks at speed  $v$ , it experiences a drag force  $F$  given by  $F = krv$ , where  $k$  is a constant.

What are the SI base units of  $k$ ?

- A**  $\text{kg m}^2 \text{s}^{-1}$       **B**  $\text{kg m}^{-2} \text{s}^{-2}$       **C**  $\text{kg m}^{-1} \text{s}^{-1}$       **D**  $\text{kg m s}^{-2}$

- 3** Which physical quantity would result from a calculation in which a potential difference is multiplied