

**2** The unit of specific heat capacity is  $\text{J kg}^{-1} \text{K}^{-1}$ .

What is its equivalent in terms of SI base units?

**A**  $\text{kg}^{-1} \text{m}^2 \text{K}^{-1}$

**B**  $\text{m s}^{-1} \text{K}^{-1}$

**C**  $\text{m s}^{-2} \text{K}^{-1}$

**D**  $\text{m}^2 \text{s}^{-2} \text{K}^{-1}$

**3** What is the vertical component of this displacement vector?