

**2** When a beam of light is incident on a surface, it delivers energy to the surface. The intensity of the beam is defined as the energy delivered per unit area per unit time.

What is the unit of intensity, expressed in SI base units?

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

B  $\text{kg m}^2\text{s}^{-3}$

C  $\text{kg s}^{-2}$

D  $\text{kg s}^{-3}$

**3** A ship is travelling with a velocity of  $8.0\text{ km h}^{-1}$  in a direction  $30^\circ$  east of north.