

# Units worksheet

## Mathematics for A-level Science

### Practice your understanding

Convert the following numbers into metres:

1. 3 km
2. 20 cm
3. 2.3 mm
4. 550 nm
5. 5.1  $\mu\text{m}$
6. 13.7 Gm
7. 0.0025 km
8. 1.001 km

Simplify the following units:

1.  $\text{cm} \times \text{cm}$
2.  $\text{km}^2 \times \text{km}$
3.  $\text{nm}^2 \times \text{nm}^{-1}$
4.  $\frac{\text{kg m}}{\text{m}}$
5.  $\frac{\text{cm}^3}{\text{cm}}$
6.  $\frac{\text{kg cm}^3}{\text{cm}}$
7.  $\frac{\text{cm}}{\text{cm}^2}$
8.  $\frac{\text{g cm}^2}{\text{cm}^{-1}}$

9. Concrete has a density of  $2400 \text{ kg m}^{-3}$ . What volume of concrete would have a mass of 96 kg?

10. What would this volume be in a)  $\text{dm}^3$  and b)  $\text{cm}^3$