

$$d = \frac{m}{V}$$

1) What is the density of an object with a mass of 55.0g and a volume of 9.2cm³? ✓

$$d = \frac{55.0g}{9.2cm^3} = 6.0 g/cm^3$$

2) A cube, below, has the dimensions shown. Its mass is 98.9g. Find the density.



$$d = \frac{98.9g}{30. cm^3} = 3.3 g/cm^3$$

$$V = l \times w \times h = 3.0cm \times 5.0cm \times 2.0cm = 30. cm^3$$

3) A liquid has a density of .926 g/mL and a volume of 18.3 mL. Find the mass.

$$d = \frac{m}{V}$$

$$18.3mL \cdot .926 \frac{g}{mL} = \frac{m}{18.3mL} \cdot 18.3mL$$

$$16.9g = m$$

4) An unknown object has a mass of 112.0g and a density of 1.86 g/cm³. Find the volume.

$$V \cdot 1.86 g/cm^3 = \frac{112.0g}{V}$$

$$\frac{1}{1/cm^3} = 1 \cdot \frac{cm^3}{1}$$

$$\frac{V \cdot 1.86 g/cm^3}{1.86 g/cm^3} = \frac{112.0g}{1.86 g/cm^3}$$

$$\frac{g \cdot cm^3}{g}$$

$$V = 60.2 cm^3$$