Health Science Pathway
Module 4: Measurement, Units and Chemistry Calculations
Practice Task 1:

1. A sample of a particular substance has a mass of 23g and a volume of 0.192 L. What is the density of the substance?

Answer:

D = ?

m = 23 g

V = 0.192 L = 192 mL (it is convenient to convert L to mL so that the density may be expressed in g/mL rather than g/L)

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

$D = \frac{23}{192}$

D = 0.12 g/mL

2. Given that the density of a particular substance is 2.5 g/mL, what is its volume when its mass is 4g?

Answer: D = 2.5g/mL

m = 4 g
V = ?

Since we need to find the volume we use:

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

$V = \frac{4}{2.5}$

V = 1.6 mL