Exercise 88

Osmium is one of the densest elements known. What is its density if 2.72 g has a volume of 0.121 cm^3?

Solution

Divide the mass by the volume to obtain the density.

$$\text{Density} = \frac{\text{Mass}}{\text{Volume}} = \frac{2.72 \text{ g}}{0.121 \text{ cm}^3} \approx 22.5 \ \frac{\text{g}}{\text{cm}^3}$$