

Exercise 92

Calculate these volumes.

(a) What is the volume of 11.3 g graphite, density = 2.25 g/cm³?

(b) What is the volume of 39.657 g bromine, density = 2.928 g/cm³?

Solution**Part (a)**

Start with the given mass of graphite and use the density to determine the volume.

$$11.3 \text{ g} \times \frac{1 \text{ cm}^3}{2.25 \text{ g}} \approx 5.02 \text{ cm}^3$$

Part (b)

Start with the given mass of bromine and use the density to determine the volume.

$$39.657 \text{ g} \times \frac{1 \text{ cm}^3}{2.928 \text{ g}} \approx 13.54 \text{ cm}^3$$